ENGINEERING NEWS-RECORD

rmy engineers cantilever a Bailey bridge across 140-ft. gorge in Italy — See p. 2.

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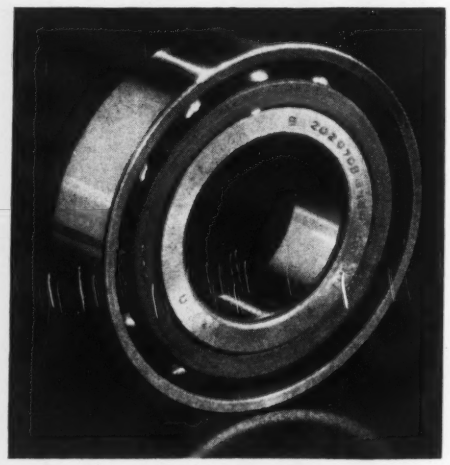
[PUMP TIPS FROM ALLIS-CHALMERS — ONE IN A SERIES]

How to make BEARINGS Last Longer . . .

ONE OF THE MAIN CAUSES of bearing trouble is misalignment. For when pump and its driving motor are not correctly aligned, every revolution of the shaft throws tremendous extra load on all moving parts within the pump's closely fitted body — resulting in greatly accelerated wear, oftentimes in complete bearing failure.

In an effort to eliminate the misalignment factor, A-C developed, for many applications, the "Electrifugal" pump — in which both motor and pump impeller are mounted on one shaft and in one frame. This *unit-design* prevents shaft from getting out of line . . . minimizes possibility of excessive bearing wear.

However, many pumps in use today are coupled to *separate* driving motors. In guarding against misalignment in this type pump, see that coupling flanges are perfectly aligned — and that they're kept that way!



Allis-Chalmers "Electrifugal" Pumps are equipped with two large ball bearings which support *both* the rotor and runner on one shaft.

Regardless of whether your pumps are equipped with ball, roller or sleeve bearings, here are a few maintenance tips that can prove useful to you in getting longer life out of bearings:

▶ Although too much oil won't harm sleeve bearings, too much grease in anti-friction type bearings will *promote* friction and heat. Main job of grease in ti-friction bearings is to protect steel elements agai corrosion, not friction.

▶ No one rule on lubrication frequency fits all pu installations. So play safe: if anything, change lub cant *before* it's too worn or too dirty.

▶ Once a month, check beari temperatures with a thermo eter . . . *not by hand.*

▶ In the case of sleeve bearing measure bearings for wear eve three months, replacing them wear is excessive. Generally low two-thousandths of an in clearance — plus one-tho sandth of an inch for each in of shaft journal diameter.

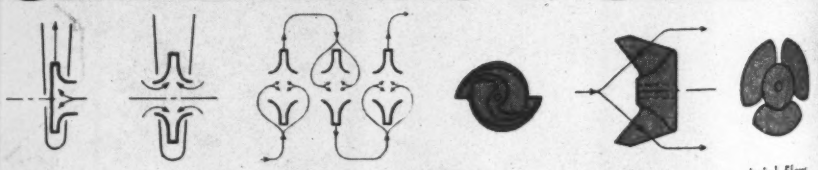
▶ Every three months, drain l bricant, washing out oil we and bearings with kerosene. the case of sleeve bearings, che to see that oil rings are free turn with the shaft.

▶ If you haven't done so a ready, send for Allis-Chalmer *free* "Handbook for Wartime Care of Centrifug Pumps". Applies to *all* makes of pumps; contai *no* advertising. Contents include: valuable tables friction losses; handy guide to locating trouble; wa time maintenance schedule. Address your request ALLIS-CHALMERS MFG. CO., MILWAUKEE 1, Wi

Tune in the Boston Symphony, Blue Network, every Saturday at 8:30 pm, EWT.

ALLIS-CHALMERS PUMPS

Allis-Chalmers builds all types and variations of pumps shown at right. Capacities from 10 to 150,000 gpm—heads to 2500 lbs.



The Week In Engineering and Construction

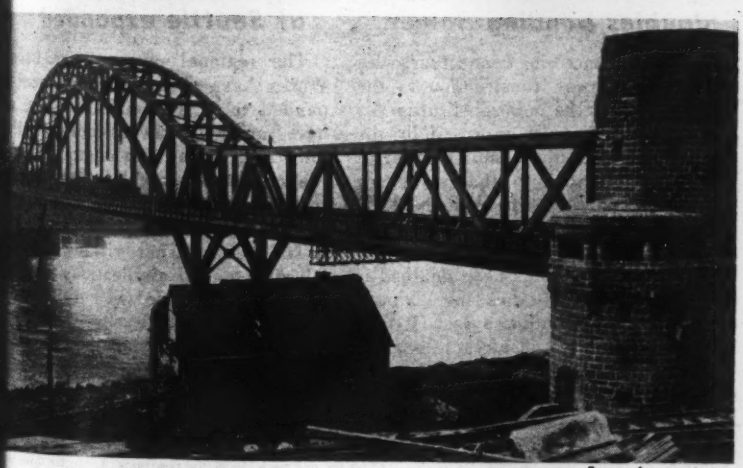
ENGINEERING NEWS-RECORD • MARCH 15, 1945 • VOLUME 134 • NUMBER 11

One of two Rhine bridges saved for Army crossing

Ludendorff Bridge at Remagen captured intact after engineers fail in attempt to save Adolf Hitler Bridge from destruction by German demolition charges

Two of the great bridges over the Rhine played a spectacular part in the war news last week, the Ludendorff Bridge at Remagen being captured on March 7 after a daring attempt to save the Adolf Hitler Bridge near Uerdingen had failed during the night of March 3. The Remagen Bridge thus provided the American forces with a superior means of reaching their first bridgehead on the eastern side of the Rhine.

Capt. George L. Youngblood



Press Assn. photos

The Adolf Hitler Bridge (above) a cantilever span, was lost after a daring attempt by men under Capt. George L. Youngblood to remove demolition charges before they could be detonated. Saved from destruction was the Remagen arch bridge (below), which now serves a major bridgehead on the east bank.

The bridge at Remagen is a double track structure built in 1916-18 during World War I. It has a total length of 1,068 ft. between abutments, the principal span being a 512-ft. tied arch over the main river channel. The side spans are 278 ft. long.

Capture of the Remagen Bridge is credited to units under the command of Brig. Gen. William M. Hoge, who directed the early work on the Alaska Highway. According to Gladwin Hill in a despatch to the *New York Times*, General Hoge told Major Murray Devers of the 27th Armored Infantry Battalion, which was spearheading the drive, that he wanted a bridge, and the battalion set out to get one. When they reached Remagen a German watchman at the west end of the bridge set off a demolition charge as he fled, but it did little damage, and Company B was able to cross the bridge and remove other demolition charges before they could be fired. This is said to have been at 3:50 p. m., ten minutes before the time set for destruction of the bridge.

The earlier attempt to save a bridge which could be used as a crossing was made near Uerdingen during the night

of March 3. In that operation a group of 19 engineers under the command of Capt. George L. Youngblood, civil engineer from Charleston, S. C., risked their lives by crawling out on the Adolf Hitler Bridge across the Rhine in an attempt to cut the wires leading to the demolition charges placed there by the Nazis.

The engineers were able to work their way across the bridge, which had been badly damaged by aerial attack and shell-fire, to near the eastern end, cutting some wire, but were driven back by burning tar at that end of the bridge before they could reach the main lines to the demolition charges. In some places the flooring had been blown away.

In recognition of their daring, Silver Stars were awarded to Capt. Youngblood and men with him.

A cantilever bridge

The peculiar appearance of the partly wrecked Adolf Hitler Bridge in the accompanying picture is due to the fact that while it has the characteristic outline of a suspension bridge it actually is a cantilever.

A description of this span, given in a translation of a German text made by the American Institute of Steel Construction about six years ago is as follows: "It is a cantilever bridge with suspended chords. Span lengths are 125-250-125m., with 6.5m. parallel trusses over the entire width of the river. The truss is stiffened by suspension chords extending chain-like from the 36-m. high pylons over the river piers. The middle span has a 50-m. long section of the truss hinged between the ends of the suspension chords."

Examination of the picture accompanying the report indicates that the suspenders are deep channels or I-sections.

There is a bridge of somewhat similar design over the Delaware River at Easton, Pa., built in the early part of this century.

Pontoon bridge built

Construction of a pontoon bridge parallel to the railroad bridge at Remagen was begun by Army engineers on March 12 and was completed that afternoon despite enemy shelling. Meanwhile, the railway bridge was heavily attacked with bombs and shells but was not seriously damaged.

U. S. Signal Corps ph

Bailey bridge erected by cantilever method

When a highway bridge over a gorge in Italy was destroyed, leaving a 140-ft. gap, replacement was difficult because no by-pass across the river was available and materials could be transferred from one bank to another only over a very circuitous and hazardous route, making replacement urge

Bailey truss members were available one side of the crossing. Therefore, Ar Engineers erected the structure by the can lever method, building a double-triple brid (two trusses vertically three thick).

Missouri constitution doubles bonding power

Of significance in connection with plans for postwar construction is the fact that under the new constitution for the state of Missouri approved by the voters on Feb. 27 the bonding power of cities and counties in that state, for general purposes, has been doubled.

In this connection the Construction Council of Missouri says: "The fact that the bonding power has been doubled is no reason why our cities and counties should go on a spending spree. It will, however, enable a considerable number of towns to undertake projects which they really need."

Regional FWA office at Seattle expanded

The regional office of the Feder Works Agency at Seattle has been e panded to a divisional office and wi have jurisdiction over federal fund a plications from Washington, Orego Idaho, Montana and Alaska, accordin to an announcement at Seattle by L. Durkee, director of the office.

The new division will be known a Division 8. All applications submitte to the Seattle office will have to be co sidered only by this office and the na tional office in Washington, D. C. For merly applications had also to be ap proved by the office in Berkeley, Cali

ENGINEERING NEWS-RECORD. Published every Thursday. Return postage guaranteed. Vol. 134, No. 11. Price 25c per copy. Allow at least ten days for chan of address. All communications about subscriptions should be addressed to the Director of Circulation, 99-129 N. Broadway, Albany, 1, N. Y., or 330 W. 42nd Stree New York 18, N. Y. Subscriptions, United States, U. S. Possessions and Latin American Republics, $5.00 for one year, $8.00 for two years, $10.00 for three years Canada $6.00 for one year, $10.00 for two years, $15.00 for three years. Great Britain and British Possessions 60 shillings for one year, 120 shillings for three years All other countries, $10.00 for one year, $20.00 for three years. Please indicate position and company connection on all subscription orders. Entered as second-cla matter October 29, 1936, at the Post Office at Albany, N. Y., under the Act of March 3, 1879. Printed in the U.S.A. Cable Address: "McGrawhill New York." Member A.B.P. Member A.B.C. Copyright 1945 by McGraw-Hill Publishing Company, Inc., James H. McGraw, Founder and Honorary Chairman; James H. McGraw, Jr., Presi dent; Howard Ehrlich, Executive Vice-President for Business Operations; John Abbink, Executive Vice-President for Editorial Operations; Curtis W. McGraw, Treasure Joseph A. Gerardi, Secretary; J. E. Blackburn, Jr., Circulation Manager. Publication office: 99-129 North Broadway, Albany 1, N. Y. Editorial and Executive Offices 330 West 42nd St., New York 18. District Managers and Branch Offices: Fred G. Hudson, 520 N. Michigan Ave., Chicago 11; 738-9 Oliver Building, Pittsburgh; J. W. Otterson, 68 Post St., San Francisco, 4; Aldwych House, Aldwych, London, W. C. 2, England; Washington; J. M. Spackman, New York; A. B. Cossens, Philadelphia E. E. Duff, Jr., Cleveland; B. F. Horn, Detroit and Chicago; W. G. Payne, St. Louis; R. N. Phelan, Los Angeles; J. I. Ballard, Boston; Ralph Maultsby, Atlanta, Ga.

abor and public relations activities be expanded by A.G.C.

o plans for raising funds for this purpose are approved at cur-ed Chicago meeting. Advance planning of construction urged.

a bob-tailed meeting in Chicago 5-6, substituting for the 26th an-nvention, the Associated General ctors of America outlined plans tly expanding their public rela-program and labor activities. At-ce at the meeting was limited, in ance with ODT permission, to sons that included only the gov-board and executive committee, national staff members and two r secretary delegates. Harry A. Portland, Ore., and Warren S. , Houston, Tex., were inducted president and vice president, re-ely.

bor matters a big problem

a starter for the proposed increase bor and public relations work, ans for raising the needed addi-revenues were approved by the tes and will be submitted to the membership for ratification. Ever labor relations were made an l activity of A.G.C. in 1937, they become increasingly important and taken up more and more time of tional staff. However, as the asso-n represents both union and non-contractors all labor activities are ory only. The national association ot make union agreements, and no taken binds any member unless grees. The various chapters may direct agreement with unions, but the members signing such agree-s are bound by them.

bor matters, the A.G.C. has found, ot confined to union acivities. The s federal laws and regulations on , hours and employment have in elves made labor relations a nent part of the association's af-and these items affect all members. ch of the time of the Chicago meet-as taken up by labor discussions. ck list reveals a total of 103 sepa-abor items currently being handled e Washington staff, many of them ing a multitude of details. Be-labor questions are certain to in-e in number, rather than decrease, ssociation plans to augment its staff to properly serve the member-To do this job right a considerable se in the budget is necessary.

blic relations, which were taken up sly by A.G.C. about a year ago, ise are becoming an increasingly important activity. An advertising and publicity agency has been retained by the association and a full time public-relations man has been added to the national staff.

A report submitted to the meeting by Dan Kimball, chairman of the public-relations committee, listed the compilation of the booklet "Public Relations for the General Contractor" as a major accomplishment in the past year's program. Because of the importance of public relations to general contractors, this activity has been included for expansion under the proposed new plan for increase in funds.

Advance planning urged

The delegates passed a resolution calling upon the members to "renew their efforts to stimulate the advance planning of needed, necessary and worthwhile construction projects which will contribute to building a greater nation, and will provide work and business opportunities for war workers and veterans." The association aims at stimulating the planning of projects for a sustained annual rate of construction of $12 billion annually by the end of the first year after the war, which would provide work and business opportunities for 2,400,000 men and women at the site of construction and nearly 5,000,000 others off the site to provide material and performing necessary services.

Another resolution recommended that the Congress appropriate $75 million for loans to state and local governmental units for preparation of advance plans for postwar construction, as authorized by the War Mobilization and Reconversion Act of 1944. The appropriation committee of the House has reduced the appropriation to $5 million. The appropriation is recommended on the grounds that such loans would enable states and local communities, which by reason of local laws or otherwise do not have funds available, to prepare plans needed for public improvements. Loan of such funds would permit the sound planning of public works to fit most effectively the needs of the community.

Valley authorities opposed

The creation of the Missouri Valley Authority or any other similar authority for the development of river basins in any part of the country was opposed by resolution, and the development of river-improvement programs was recommended to be carried out by the Bureau of Reclamation and the U. S. Corps of Engineers. The recommendation carried a stipulation that all work be done by contract under competitive bids.

The association also recommended to Congress that it give consideration to providing for the accelerated depreciation of structures, plants and equipment as a stimulus to privately-financed construction. This resolution urged the adoption of the A.G.C. proposal for permitting the owners the alternative of depreciating half the cost of a structure, plant and equipment during the first

(*Continued on page* 14)

Blackstone Studios

Shown above are the new and old officers of the Associated General Contractors. Left to right, H. E. Foreman, Washington, D. C., managing director; William Muirhead, Durham, N. C., retiring president; Harry A. Dick, Portland, Ore., president; and W. S. Bellows, Houston, Texas, vice president.

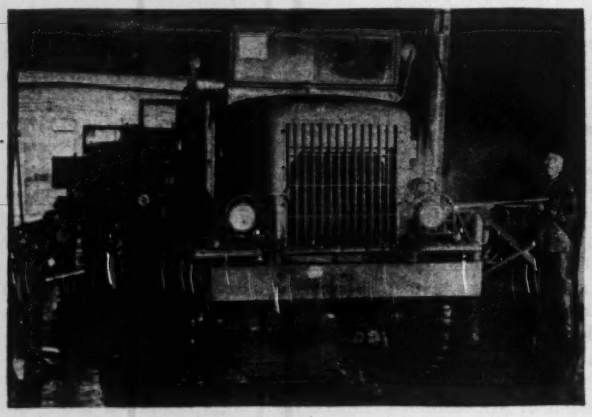
Heavy-Duty Construction Equipment Processed for Shipment Overseas

The Transportation Corps of the U. S. Army, at its Hampton Roads, Va., Port of Embarkation, has developed a unique production-line technique for processing equipment for shipment overseas and for storage, often without shelter, prior to being placed in service.

The process is applied to all types of general purpose vehicles for use by the Engineers, Signal Corps, Ordnance Corps and Field Artillery, including motor trucks, track-laying vehicles, heavy-duty construction equipment, tanks, locomotives, artillery and similar machines.

The essential feature of the production-line technique involves the protection of all metal surfaces by a sprayed-on rust-preventive film, applied cold, which is known as Par-Al-Ketone, Army specification No. AXS 673, lead b and is manufactured by lea petroleum companies. Also, mecha and electrical inspection; checking servicing; complete lubrication; o and paper wrapping of metal pa sealing of joints and openings masking tape, and safeguarding cal parts of machines from breakag plywood barricades.

All photos by U. S. Army Signal C



First operation is to remove all dirt from the vehicle by use of a high-pressure water system before placing it on processing ramp. Engine compartment, chassis, front and rear axle assemblies, transmissions and transfer cases thoroughly cleaned with steam and solvent. The machine is then washed with clear water. Right: A rust-preventive is being sprayed on entire undercarriage, universal joints, upper hardware and all other vulnerable metal surfaces.

To protect the carburetor, distributor coils, and other engine accessories, they are enclosed with a greaseproof wrapp and sealed with adhesive, non-hygroscopic tape. Right: Entire engine compartment and exterior of engine, including components are sprayed with an ignition insulation compound.

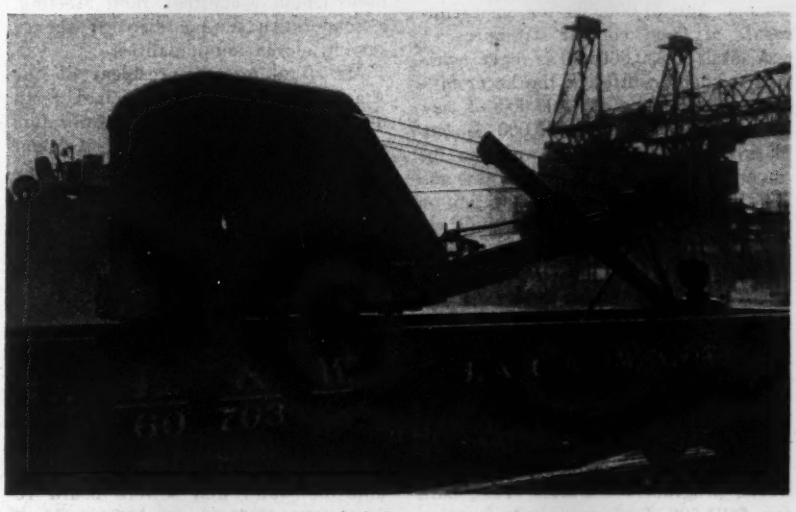
exposed glass and the radiator front are protected by a barricade of ¼-in. thick plywood, which is securely ened with steel strapping. Right: A waterproof paper and non-hygroscopic tape are used to seal the engine hood, hts and radiator barricades. All paper and tape on the exterior of each vehicle is coated with a sealing compound. headlamps, barricades and other exposed parts are painted with an olive drab enamel.

he purpose of processing, accord- to the official statement of the nsportation Corps, is to prevent nage, corrosion or deterioration of ipment while en route to various ters of operations overseas; to pre- the equipment to withstand tem- tures of —40 deg. F. to + 130 deg. nd varying humidity; to stand-up er intermittent contact with sea- er when deck-loaded; and to insure the material or equipment will be such condition upon arrival at its tination as to make it possible to e it in service with a minimum of e and labor.

The speed at which the equipment be deprocessed at point of use is a or consideration in the methods for processing. The present essing technique makes possible deprocessing of general purpose cles on the average of one every in. All that is required at the port barkation is to strip off the mask- tape, rip off plywood barricades adiator and windshield, tighten up fan belt, connect batteries, fill the tank and drive off. The rust-pre- ive film need not be removed, as it qually of value after the equip- t is put into operation as when en e overseas.

Brig. Gen. John Reed Kilpatrick mands the Hampton Roads Port Embarkation. Lt. Col. E. S. Smith irector of the Facilities and Supply ision.

The accompanying illustrations depict ious stages in the production-line thod of processing.



Equipment that cannot be unloaded from cars, such as the trench excavator and tractor-bulldozer at top and the power shovel in lower picture, is processed at piers or "outbound park" by mobile processing units.

Funds for civil works increased by Senate

Monday of this week the Senate passed a $112,450,000 Appropriations Bill (H. R. 2126) for the civil works functions of the War Department for the fiscal year 1946. The Senate increased by $13,285,000 the amount provided in the bill as passed by the House Feb. 13.

Nearly all of the appropriations approved are for flood control and rivers and harbors work by the Corps of Engineers, U. S. Army. A total of $44,508,000 was earmarked for river and harbor operations. Of this amount $35,388,000 is to be spent for maintenance, including operations control, $3,500,000 for preliminary planning and surveys, and $5,620,000 for new construction.

Most of this latter fund will be spent on five project considered of sufficient value to the war to be carried out at the present time. These jobs are: Dredging and rock removal in the New York-New Jersey channels, $3,250,000; spillway and lock work on Caloosahatchee River and Lake Okeechobee, $165,000; dike and revetment work on Mississippi River between the Ohio and Missouri rivers, $1,000,000; Open channel work on the Ohio River, $507,000; and widening Illinois Waterway at two locations, $500,000.

Still larger amounts are provided for flood control. An appropriation of $24,172,000 is included for flood control in general, of which $7,044,000 is designated for new construction or levee and revetment work in Illinois, Indiana, Missouri, and Ohio; $4,500,000 for preliminary examinations and surveys; $9,635,000 for advance planning of postwar construction; $1,308,000 for maintenance, and $1,000,000 for emergency repair of flood control structures.

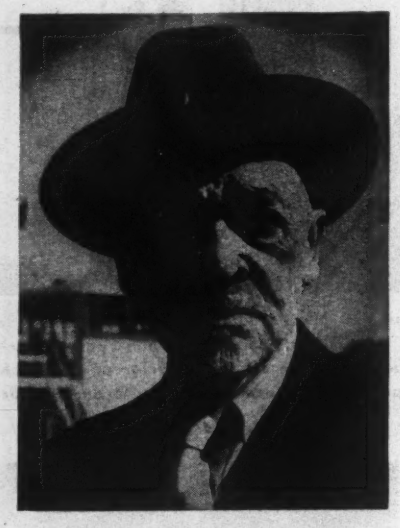
A total of $30,000,000 is made available for flood control on the lower Mississippi, including $20,000,000 of new work. In addition $2,050,000 is earmarked for flood control work on the Sacramento River in California and $500,000 for emergency construction on the tributaries of the Mississippi.

Also included in the bill as passed by the Senate is a $8,108,000 item for operations in the Panama Canal Zone, including $810,600 for new construction and $4,137,000 for maintenance and operation.

A $856,000 postwar sewer and waterworks program for Dallas, Tex., calls for $601,600 for new sanitary sewer mains and $255,000 for new water facilities.

E. S. Rankin dies; Newark sewer engineer

Edward S. Rankin, chief engineer of the Newark, N. J., division of sewers, whose record of continuous service with that city extended for more than half a century, died on March 4, at the age of 84.



Mr. Rankin, who was a civil engineer graduate of Princton in 1882, worked in the Dakota Territory for one year and then took a job in the engineering department of the Pennsylvania R. R. In 1887 he entered the service of the city of Newark as an assistant surveyor, was placed in charge of sewer work in 1903 and became division head in 1929.

In addition to his work with Newark, he designed sewer systems for neighboring communities and for many years until his death was secretary of the Essex-Union (counties) Joint Meeting, a cooperative sewage disposal agency serving eleven municipalities.

Mr. Rankin was president of the American Society of Municipal Engineers in 1922, which organization awarded him its first medal of honor for loyal service and distinguished competence in municipal public works. River and ocean travel was his hobby, and he traveled on many of the waterways in this country, Europe and South America.

Miami, Fla., made progress toward providing sewage facilities for a population of 710,000 and expanding the water supply system to accommodate a similar number when the port authority and the water and sewers board recently gave their approval of a new network of sewers that will eliminate cesspools and septic tanks.

Canol project halted by the War Departme

The War Department announce March 8 that the operation of the C oil project in northwestern Canada be halted on June 30 because of provement in the tanker situation the more favorable military positio the Alaskan area.

The $134,000,000 project (*ENR* 18, 1944, vol. p. 730), which wa considerable engineering interest, started in April, 1942, when t was danger of Japanese attacks Alaska and our sea routes in that of the Pacific. There has been m controversy over it, and its aban ment has long been recommended Secretary of the Interior Harold Ickes, Petroleum Administrator War.

Facilities to be suspended inc production at Norman Wells, a 600 pipeline to Whitehorse, and a refi at the latter place. American perso and equipment will be withdrawn soon as possible. Additional infor tion will be published in a forthcom issue.

• • •

Tunnel and channel wo started at Boulder Dam

Recovery of about 4 ft. of operat head for Boulder power plant is pected to result from a $2,586,450 t nel and river-channel improvem project which the Guy F. Atkinson of San Francisco, has under contr with the Bureau of Reclamation to st at Boulder Dam month.

The contract calls for dredging Colorado River channel for a dista of about 3,000 ft. downstream from portals of the spillway tunn and outlet tunnels used for diverti the river during construction of dam.

E. A. Moritz, regional director of Bureau of Reclamation at Boulder C Nev., explained that bars and accumu tions of broken rock and river debris the channel have resulted in increa water surface elevation and a consequ loss of head at the power plant. T restoration of the operating head, said, will be made permanent by rem ing from the canyon walls or river ban "all materials which might, in time, come dislodged, and by modifying four tunnels to eliminate dischar characteristics which contribute to formation of bars in the river channe

About 300 men will be employed the project which, under the terms the contract, must be completed with 750 calendar days.

A. H. Compton receives the Washington Award

The Washington Award, one of the eted honors in the engineering pro- sion, was given cently in icago to Arthur Compton, dean the Division of ysical Science d chairman, De- tment of Phys- University of icago. Dr. mpton received s signal honor his outstanding work in research d teaching on the action of x-rays d cosmic rays in the field of physical nce. A graduate of the College of oster in 1913, Dr. Compton also ds Master of Science and Doctor of ilosophy degrees from Princeton.

The award was first proposed in 1916 the late John W. Alvord who do- ed a fund for its maintenance. Later, scope of the award was enlarged d the name Washington Award opted as a reminder that the first sident of the United States was an gineer. It is conferred each year by Western Society of Engineers in t agreement with the American So- ty of Civil Engineers, American In- ute of Mining and Metallurgical gineers, American Society of Me- nical Engineers and the American titute of Electrical Engineers.

Presentation of the award was made Philip R. Elfstrom, president of the stern Society of Engineers, at a joint eting of some 450 members of the participating societies.

. . .

Dutch lend pump to aid n Syracuse emergency

City Engineer Nelson F. Pitts of Syra- e, N. Y., has the emergency use of a e pump which will eventually help eclaim 1,000,000 acres of the Nether- ds, flooded with salt water by the rmans. Permission to use the pump, able of pumping 10 mgd., was nted by the Netherlands Purchasing mission to aid in clearing the over- caused by a break in the city's est sewer.

he 24-in. pump was taken to Syra- e from the plant of the Worthington p and Machinery Corp., Harrison, J. It is one of 200 being manu- ured for the Netherlands government reclaiming a million acres of flooded ds in Holland. No rental charge ade by the Netherlands commission.

State aid for local postwar building upheld

Legality of California legislation authorizing the extension of $10,000,000 in subsidies to local governments requiring financial assistance in carrying out postwar construction programs was upheld Feb. 26 in a decision handed down by the State Supreme Court.

The decision was the outcome of a friendly suit instituted by the city of Los Angeles to test the legality of an act, passed at the June, 1944, session of the California legislature, in which State Finance Director James S. Dean and members of the State Public Works Board were made defendants.

As the initial move for a friendly court action, members of the Public Works Board, at their first meeting, held in September, 1944, adopted a resolution refusing to set up rules and regulations for the operation of the new statute. (*ENR*, Oct. 4, '44, p. 108).

The city of Los Angeles, through its city attorney's office, subsequently filed suit in the state's Supreme Court petitioning for a writ of mandate to compel the Public Works Board to allot $2,000,000 to the municipality as its required portion of the $10,000,000 appropriation.

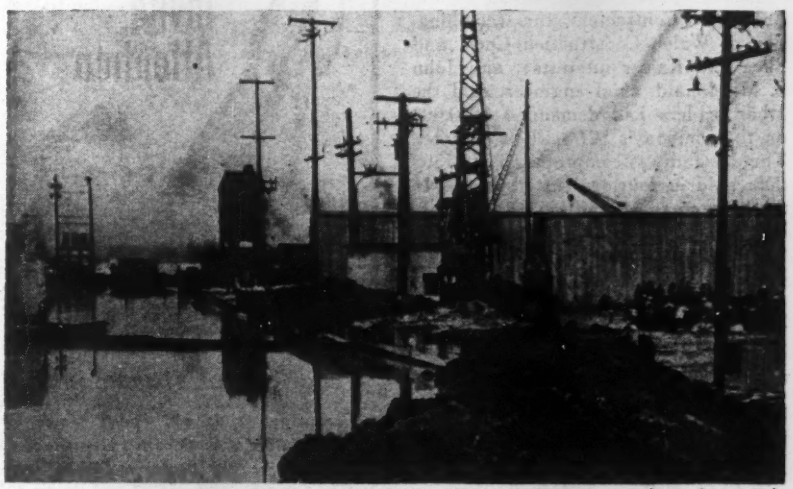
In passing on the case, the Supreme Court held the legislative act to be legal and a mandate was issued requiring the Public Works Board to allot to Los Angeles the full $2,000,000. To obtain the amount, however, Los Angeles must match the amount dollar for dollar.

Value of flood control is being demonstrated

With the Ohio River falling everywhere between Pittsburgh and its junction with the Mississippi, except at a few gages in the stretch from Evansville, Ind., to Paducah, Ky., the Corps of Engineers early this week reported to the Secretary of War on the benefits that resulted from the completed flood control works on that stream. This report reveals that the completed facilities reduced by 1.8 ft. the stage at Pittsburgh, resulted in a 2-ft. reduction at Wheeling, Marietta, and Parkersburg, 1.5 ft. at Point Pleasant, and 1 ft. at Huntington and Portsmouth. Preliminary estimates of the damage prevented by reservoir operation were as follows: Pittsburgh area, $4,300,000; Wheeling area, $2,200,000; Huntington area, $1,500,000; Muskingum Basin, $360,000; and Cumberland Basin, $50,000. A partial preliminary list of damages prevented by federal local protection works is as follows: Johnstown, $150,000; Wellsville, Ohio, $120,000; Huntington and Guyandot, $3,000,000; Ceredo Kenova, $400,000; and Middlesboro, Ky., $50,000.

At some points such as Jeffersonville, Ind., work on the flood-control structures has not been completed due to war conditions.

The floods were caused in part by melting snow, but the sudden rise was due chiefly to a heavy rainstorm having its axis about parallel to that of the river.



Press Assn. photo

Temporary dike stops Ohio at Jeffersonville

Flood waters from the Ohio were kept out of Jeffersonville, Ind., by an emergency dike thrown up across an area where the concrete floodwall being built by the Army Engineers to protect the city still is incomplete. Clamshell buckets were used to fill a box-levee built out of timber. The flood protection works include both levees and walls, which are designed to give a 3-ft. freeboard over the record flood of 1937.

Contractors admit large payments to avoid labor troubles on aqueduct

Delaware Aqueduct contractors testify to payments of $25,000 to $150,000 for guarantee that jobs "would run smoothly"

In a trial now being held in the New York State Supreme Court sitting in New York City several nationally known contractors have testified to making high cash payments to Joseph S. Fay and James Bove, New York area union leaders. Testimony was given in connection with charges brought by the State of New York against the labor representatives alleging conspiracy to extort $703,000 from contractors working on the 85 mile long $300,000,000 Delaware Aqueduct, of the New York water supply system, during the period from 1938 to 1942.

Fay is a vice-president and eastern district representative of the International Union of Operating Engineers and Bove is the former vice-president of the International Hod Carriers and Common Laborers Union. The district attorney charged that Fay, in addition to being an international officer of the building trades union, was president of the contracting firm, the International Excavating Co., president of the International Engineering Company and owned a one-third interest in the International Holding Corporation which was in the business of renting or selling hoisting machinery to contractors.

Payments in cash

Thomas J. Walsh, president of the Associated Contractors, Inc. (combination of Walsh Construction Corp. and Shea and Kaiser interests), and John S. Macdonald, chief engineer, said the labor leaders had demanded $250,000 on the company's $21 million contract. The demand was compromised at $150,000, paid in fourteen installments. In addition, on an $11 million contract held by Walsh Construction Corp., alone, $62,000 was paid. Payments were made, starting shortly after the receipt of the contract, in large denomination bills to Bove and to Fay.

Louis R. Perrini, president of B. Perrini & Sons of Massachusetts, testified to paying to Fay and Bove $35,000 to see that there were no "labor difficulties, strikes or disputes" on the $3 million contract his firm held for the diversion tunnel and cofferdam at Merriman Dam. In addition, Mr. Perrini, former secretary of the Seaboard Construction Co., made up of Canadian and American contracting firms, testified that Seaboard paid $125,000 to Fay and Bove. In his testimony he identified Harry F. McLean, Canadian contractor, who has received wide notoriety for scattering large denomination bills from hotel windows and to workers, as president of Seaboard at the time and as the negotiator on payments of money for that firm. McLean has not put himself within the jurisdiction of the courts and this part of the charge indictment was subsequently changed from extortion to attempt to extort, due to lack of direct evidence.

Testimony regarding Lincoln Tunnel

Not within the indictment or the present case but admitted as evidence because cross examination had introduced the subject, Perrini testified to paying Fay $50,000 to insure "labor peace" while his company was working on approaches to the Lincoln Tunnel, connecting midtown Manhattan with New Jersey, in November, 1937.

Miles I. Kilmer, vice president and general manager of Mason & Hanger, who held a $15,500,000 contract for construction of Merriman Dam, sw[ore] to making three payments of $12,[000] each, to Bove up to 1942 when [he] declined to pay the balance of an agr[eed] $60,000 because the job had been s[hut] down as a non-essential project d[ur]ing the war period.

On a $5,000,000 subcontract on [the] Mason & Hanger job, William Brewster, president of George Brewster & Son, of Hackensack, N. [J.] paid $30,000 to Fay and Bove in th[ree] installments.

No denial of receipt of the money [was] made. A verdict in the case is expec[ted] early this week.

Thoughtful statement

Camouflage is an art, reports Waldo G. Bowman, editor of Engineering News-Record, who is now in the European Theater, and it takes art to put it over. To emphasize his statement he enclosed with a recent letter the above poster (original in two colors), which is one of a series prepared by an Engineer Camouflage battalion in France. Engaged in reporting the achievements of Army engineers abroad, Mr. Bowman states that he could not overlook this contribution.

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Senate increases aid to local planning groups

As predicted in the March 1 issue [of] *Engineering News-Record* the Sen[ate] Appropriations Committee in report[ing] out the $3.1 billion Independent Offi[ces] Supply Bill (H.R. 1984) increased [the] amount of federal aid for distributi[on] through the Federal Works Agency [to] local groups for planning postwar p[ub]lic works construction. Only $5,000,[000] was provided by the House when [it] passed the bill Feb. 8, although [the] president had asked for $75,000,000.

The Senate committee increased [the] amount to $35,000,000 with an und[er]standing that the Senate as a wh[ole] change the bill so that $5,000,000 co[uld] be distributed without any matching [fund]ing required by local bodies but that [the] remaining $30,000,000 only be d[is]tributed if the local organizations ma[tch] the aid on a fifty-fifty basis.

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San Francisco to ask bids on big storm sewer

First step toward replacement of S[an] Francisco's antiquated sewage system [in] accordance with provisions of a $12,[000]000 bond issue voted last Novem[ber] (*ENR*, Nov. 16, 1944, vol. p. 604) [is] scheduled to be taken at an early d[ate] when Public Works Director Harry [J.] Vensano calls for bids on a storm se[wer] estimated to cost $200,000.

Announcement that the city will [ac]cept bids on the project was made March [1]. By Mr. Vensano following his receipt [of] official notification that the War Produ[c]tion Board had approved issuance [of] priorities to cover necessary materi[als] and manpower.

The storm-sewer will be laid [in] Lincoln Way, from Forty-eighth Ave. [to] the ocean front. The project will in[c]lude three channels 8 x 10 ft., each, [to] carry off flood waters and provide rel[ief] for the Richmond-Sunset reduction pl[ant] in the southwest corner of Golden G[ate] Park.

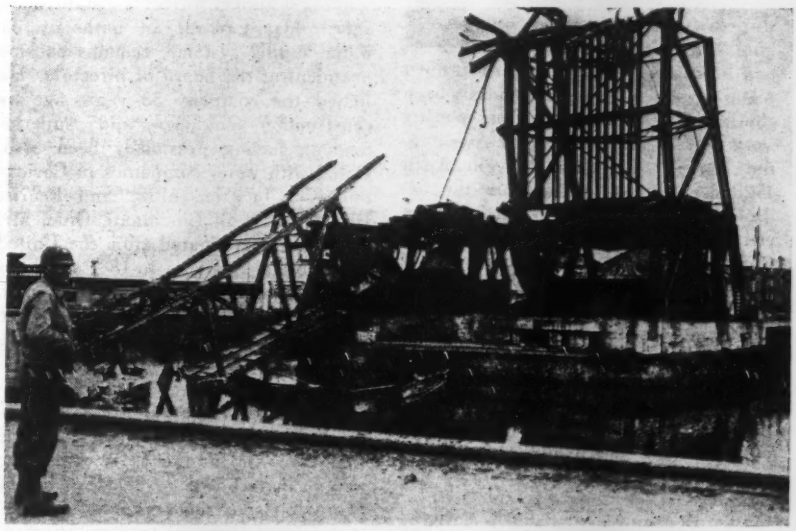
French Use Hand Tackle To Remove Blasted Bridge from Canal

Waldo G. Bowman
Editor, Engineering News-Record
(By air mail from the European Theater of Operations)

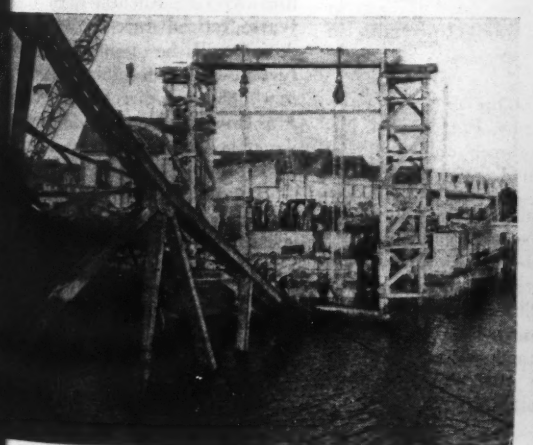
here are few if any bridges, which Germans have blasted from their dations, that French contractors ot raise with hand tackle hung from rovised gantry frames set up to span tructures. They did it in 1940, when ch bridges were destroyed for the time, and now they are beginning to again.

typical small scale job, involving a ft. span single-track Scherzer roll-ift bridge over a canal, is illustrated he accompanying pictures. Here it desired not only to raise the bridge, end of which was in the water, but ove it ashore so that it would not k the canal, and so that it could be ssembled at leasure.

he steps in the procedure, in order, e: to erect the gantry frame consist- of braced, triangular framed-timber- towers carrying a box plate-girder s-member; to install the tackle and l winches; to raise the downend of span; to run a barge under the to pick up the load at the opposite ; and then to pull the span ashore ugh the gantry, with the use of the l winches, landing it on small roller-dollies running on six lines of railroad rail distributed across the landing area. Other details of the procedure are evident from the illustrations.



German demolitions left this wreckage of two Scherzer rolling-lift spans. The half of the near span, which was in the water, was pulled out in pieces by a crane, but it was deemed to be quicker and more desirable to remove the far span complete as illustrated in the pictures below.



try tower and block and tackle being prepared for raising the far end of the span. The tackle consists of two block- falls reeved with 8 parts of 1⅛-in. cable and operated from hand winches on the bank. Right: Far end of the span been raised by the tackle on the gantry tower, and a barge has been run under the near end to support it. Next step to pull the span ashore through the gantry tower, the barge moving sideways across the canal.

MEN AND JOBS

John R. Riter has been named director of the branch of project planning of the Bureau of Reclamation. He takes over duties of the position left vacant by the appointment of **Erdman B. Debler** in September, 1944, as director of the Bureau's new Region 7. Riter, who has been assistant director of project planning since June, 1944, has been continuously employed in engineering work for 20 years. Before he went to the Bureau of Reclamation in April 1928 as a junior engineer in the hydrology and investigations section, Denver office, he served as a rodman for the Bureau of Public Roads and a junior mathematician for the Coast and Geodetic Survey. Other experience includes employment with the agricultural research department of the American Smelting and Refining Co. in Salt Lake City, Utah. He has advanced rapidly in the Bureau of Reclamation from the positions of assistant and associate engineer until in June 29, 1940, he was promoted to the rank of senior engineer in the Denver office. Riter received a bachelor of science degree in geology in 1926 and a bachelor of science in civil engineering in 1928 from Utah State Agricultural College.

Cecil E. Pearce, formerly head civil and hydraulic design engineer for the second Nisqually power development of Tacoma, Wash., has resigned to become hydraulic engineer with the Ebasco Services, Inc., New York City, the basic design work on the Nisqually project having been completed.

William T. Morrissey, head of the highway division, Boston, Mass., since 1937, who entered the service as a rodman 30 years ago, has been appointed public works commissioner, succeeding **George G. Hyland.** The latter returns to his former post as engineer and superintendent in the Boston water department. He has also been appointed Boston Salvage commissioner, a temporary unpaid position.

Herman Haugk, Decatur, Ind., in the road and general contracting business for about 25 years, has been named supervisor of the Adams County, Ind., highway department. He succeeds **William Ehrsam** who, as county surveyor, has also held the highway job for the last three years. **John W. Tyndall,** Decatur, becomes county surveyor.

Eugene Carroll, associated with the Butte Water Co. in Montana since 1891, retired as general manager of the company recently. He is succeeded by **Wade Plummer,** former assistant manager. Mr. Carroll, an authority on water supply systems, remains as vice president of the board of directors. He joined the company 53 years ago as construction engineer and superintendent, having previously been associated with water companies in Covington, Ky., Jackson, Miss., and Peoria, Ill. A native of Cincinnati, Ohio, Mr. Carroll was graduated from the United States Naval Academy in 1881 and later entered engineering. Mr. Plummer, with the company since 1919, has been foreman, assistant superintendent, superintendent and assistant manager.

Thomas J. Fountain is the first incumbent of the newly-created post of staff engineer for the Ft. Worth, Tex., water department. Besides having helped on construction of water, sewer and sewage disposal systems in many parts of this country, Fountain built 17 miles of sewers and three disposal plants in France when he was a captain in the Engineer Corps in World War I. He is a native of Alabama, and was graduated from Texas A&M College in 1901 and from Cornell University in 1905.

G. M. Ponton is the new city engineer at St. Augustine, Fla. He was formerly project engineer and geologist for the Florida Road Department.

A battlefield promotion from technical sergeant to second lieutenant has been awarded **Robert Wunderlich,** former employee of the Detroit, Mich., office of the U. S. Engineers. The promotion was given him in Belgium recently for his work as a member of the Army Engineers. Since then he has been transferred to Holland.

Arthur F. Hewitt, Denver, Colo., has been appointed state highway engineer by the Governor of Colorado, to fill the vacancy caused by the death of Charles D. Vail. Mr. Hewitt has been serving the state highway depart as assistant state highway engineer was graduated from the Col School of Mines in 1905 and has with the highway department 1929 to date.

Myron V. Judd and **John S. W** engineers on a railroad project fo Navy near Bremerton, Wash., ha tablished an office in Bremerton fo practice of civil engineering and surveying.

Michael W. Drazich has been t ferred by the Bureau of Reclam from Altus, Okla., to Hamilton, M where he will work on the Wood Florence irrigation project.

Robert S. Mayo of Lancaster, has been promoted recently from tain to major in the Marine Corps is executive officer of a Combat neer battalion somewhere in the S Pacific. Prior to joining the Ma he was a consulting engineer, sp izing in tunnel construction, and i author of the book *Practical Tu Driving.*

Maj. Homer D. Thomas, who merly was in charge of engineer struction at the Iowa Ordnance p Burlington, Ia., will be resident neer of the new project office at Twin Cities Ordnance Plant, Brighton, Minn.

Paul A. Jones, construction engi for the Bureau of Reclamation, been transferred from Terry, Mont Kalispell, Mont., to take charge o Hungry Horse project.

Winthrop K. Howe, vice presi in charge of engineering of the Ge Railway Co., Rochester, N. Y., fo years, retired recently. Many of duties will be assumed by **Osca Fields,** senior designing engineer, new office of director of engineer Mr. Howe will continue in an advi capacity as a director.

Col. David Philpot, for the la years city engineer of Cranbrook C., has resigned and **Ernie Eric** has been named his successor.

Homer A. Dise has been appoi engineer of structures, Erie Railr at Cleveland, Ohio, succeeding A **Knowles,** retiring after 39 years. A **Visintainer** has been appointed a tant engineer of structures.

John E. Walker, for 22 years neer of Marion County, Fla., has signed to go into business in O

BRIEF NEWS

...ers to cost $1,193,000 and pave-..., $174,900, are expected to be ...by the city of Rochester, N. Y., ...the war. Under direction of Ken-...J. Knapp, city engineer, a survey ...eeded public improvements was ...to take advantage of the offer of ...ate to pay one-half the cost of pre-...g plans for postwar work.

...e sewers and pavements are a part ...posed new construction, including ...500,000 city hall and a $3,500,000 ...m for sports, to make a total of ...7,900 for which the city council ...sked the state for aid in planning.

...e Ontario Department of High-... postwar plans of highway con-...ion involve the expenditure of ...000,000.

...e San Jacinto Conservation and ...mation District in Texas has been ...ed priorities by the WPB to con-...t canals, reservoirs and pumping ...ns to bring water from the San ...to River to the Galveston-Baytown-...s City area. Walter G. Hall, presi-... of the district, said WPB granted ...riorities on the condition that the ...f ground water will be proportion-... reduced in the area as the river ... becomes available. This condi-...was necessary to guarantee that the ...rground water supply will be con-... because the level is falling rapidly. ...neers are preparing plans and ...ifications for bids to be submitted ...e project.

...udies that will lead to the trans-...g of Colorado River water rights ... the city of San Diego, Calif., to ...San Diego County water authority ... begun recently by city and au-...ty officials. Created by vote last ..., the authority has power to direct ... finance facilities to bring in the ...00,000 gpd. Colorado River water ...ated to San Diego County.

...rvice Director Elmer A. Keller and ... Columbus, Ohio, officials have ...n to halt pollution of the Scioto ... caused by a flow of about 12 mgd. ...e the capacity of the local sewage ...sal plant. The plan is to ex-...e the possibility of treating with ...ine the sewage that is by-passed ... the river; to speed up treatment ...ewage by blowing more air into ...ion basins by installing perforated ...; and to expand the aeration beds. ...e chlorine treatment, if feasible, ...the installation of the pipe will be done at once with existing city funds, Mr. Keller said. The expansion of the aeration basins will be done some time this year.

The Southwest Water Co., Inc., has applied to the Arkansas Utilities Commission for a certificate of public necessity and convenience to build an earth-fill dam across Two Prairie bayou on the borders of Lonoke and Prairie counties to provide water for local rice farmers. Cost of the project will be approximately $120,000. The dam will be 8,000 ft. long and 16 ft. high and will form a lake 13½ mi. long, flooding timber land mainly.

Plans are complete now for rebuilding the British House of Commons, London, damaged by bombs in 1941. The estimated cost is $5,000,000.

Plans for a slum clearance project in Toronto, Ont., were outlined by W. L. Somerville, vice-president of Wartime Housing Limited, at a public conference on housing held recently. Migration of population to the outskirts was blamed for some of Toronto's housing problems, emphasizing the need for low-rent housing projects in the center of the city. The Board of Control has voted $5,000,000 to start slum clearance.

Norman Powell, resident engineer at Pymatuning Dam, near Greenville, Pa., says the dam, which cost nearly $4,000,000, has already paid for itself in flood damage saved Greenville, Sharon, Farrell, New Castle, and other communities along the Shenango River. He said the dam had averted no less than five major floods.

Mexico is to push its program for small irrigation works on a national scale in 1945 with a special appropriation to the National Irrigation Commission of $3,500,000.

The Bureau of Reclamation recently began operation of the twelfth 82,500-kw. unit at the world's largest power plant, Boulder Dam. Also in operation is one 40,000-kw. unit, and two station service units, bringing the total capacity of the plant to 1,034,800 kw.

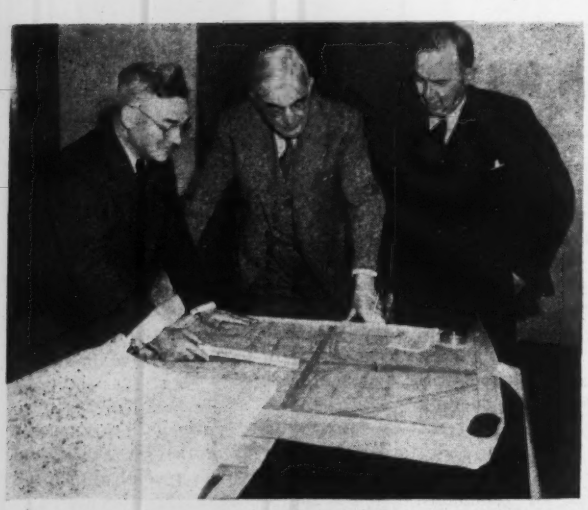
U. S. Bureau of Reclamation photo

Model helps in solution of hydraulic problem

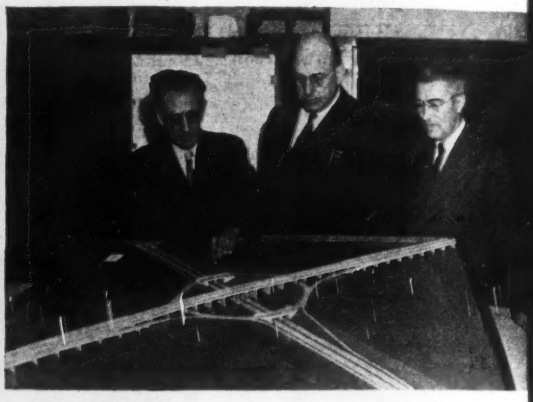
Aiding in the location of the Delta Cross Channel of California's Central Valley Project (ENR Jan. 25, vol. p. 118) the proposed fresh water channel through the common delta of the Sacramento and San Joaquin rivers, was this scale model of the Delta region constructed in the Bureau of Reclamation's hydraulic laboratory in Denver, Colo.

Various conditions of river stage and ocean tide were simulated by flowing water into channels of the model. Tides were produced by a specially designed pump, and by using colored water repellent action of fresh water flow against tide water was observed. The purpose of the channel is to transfer water from the Sacramento River to the San Joaquin Valley for irrigation purposes, and to flush into delta channels a flow of fresh water to repel incursion of salt water.

MEN AT WORK



Two major expressways, the Crosstown and the John G. Lodge, a being planned for early construction in Detroit by these engine of the Michigan State Highway Department and the Wayne Cou Road Commission. At left: HARRY A. SHUPTRINE, engineer bridges and structures, Wayne County, Mich., points out so salient features of the bridged rotary interchange to LEROY SMITH, county highway engineer and JULIAN C. MEAD, engine of structural design. From left to right, (lower left): F. SPENCE WEBER, acting engineer of bridge design; E. H. HAAHR, brid construction engineer; and J. H. FLYNN, assistant bridge engine Lower right: Inspecting a model of the bridge rotary interchan for the two expressways are: HARRY L. BRIGHTMAN, eng of postwar planning; GEO. A. TIEDEMAN, engineer of ro design; and CARL A. WEBER, assistant road engineer—all the highway department



Cheerful but mighty busy are these construction superintendents (at right) on a $1,650,000 house moving project. Some 109 FPHA houses will be transported from near the Ravenna, Ohio ordnance plant to Detroit, Mich. JAMES LONIE of the Bush Construction Co., New York, (left) is in charge of moving while H. WILSON of A. W. Kutsche and Co., Detroit, supervises the preparation of the new site.

Officers of one of the Bulldozer battalions of the Ninth Engineer Command, which built the first American emergency landing strip on the Continent, pause to examine a map with Maj Gen. Ralph Royce, deputy commander of the Ninth Air Force. Left to right: CAPT. RAYMOND N. CARLEN; LT. COL. JOHN J. LIVINGSTON of the Engineers; MAJ. GEN. RALPH ROYCE, and COL. PHILIP COLE.

WASHINGTON HIGHLIGHTS

Dr. Thomas Parran, Surgeon General of the U. S. Public Health Service, in a description of the current status of civilian health in the United States recently said: "Correction of deficiencies in the nation's sanitary system would entail construction or modernization of approximately 11,500 water systems, provision of adequate sewerage facilities in more than 10,500 communities, safe water and privies for 5,000,000 rural homes, and construction of 400 milk pasteurization plants in 34 states and Alaska."

He also pointed out that under the Communities Facilities Act, $125,000,000 in federal funds was expended during the 1944 fiscal year to assist communities in the construction of 362 water supply systems, 354 sewage disposal systems and 30 garbage disposal plants. At the end of the fiscal year, 521 of these 746 projects were in operation or substantially completed.

Speaking of needs for the postwar period, Dr. Parran said, "In the first 10 years after the war there will be a need for 166,000 beds in new general hospitals, 191,000 beds for mental hospitals and 60,000 beds for tuberculosis institutions. These would entail an expenditure of almost $2,000,000,000. There will be a particularly urgent need in rural areas for the construction of small, well-equipped hospitals and health centers."

The House Military Affairs Committee on March 6, approved legislation to grant easements to Galveston County, Tex., for construction of a tunnel between Galveston Island and Bolivar Peninsula at the mouth of Galveston Bay. Congressional action is necessary because the tunnel would touch upon property of the San Jacinto Military Reservation.

A bill (H. R. 2298) has been introduced in Congress by Representative Ivan Howell of Illinois authorizing the State of Illinois to abandon the Illinois and Michigan Canal. Land necessary for the waterway was made available by Congressional acts in 1822, 1827 and 1833, and Representative Howell seeks to have his state obtain complete title to the land once the canal is abandoned.

A $20,000,000 advance from the U. S. Treasury to finance future slum clearance and housing in the District of Columbia is proposed in a redevelopment bill (S. 610) which Sen. Arthur Capper of Kansas has introduced in the Senate. The cost of the program would be repaid out of the redevelopment receipts. If there should be a deficit after 10 years the loss would be shared equally by the district and national governments, while any surplus would go to the U. S. Treasury. A bill (S. 13) introduced by Senator Pat McCarran of Nevada a few weeks ago proposes abolition of the National Capital Housing Authority and creation of a new agency for which $30,000,000 would be provided.

Changes in the construction limitations applicable to authorized building projects have been incorporated in an amendment to Schedule A to Controlled Materials Plan Regulation No. 6, the War Production Board reported Feb. 21. The revised restrictions are applicable to all construction authorized on form GA-1456 on or after Feb. 17, 1945, following approval on form WPB-617. In addition, a builder whose authorization was issued before that date may take advantage of any provisions of the amendment. The changes also are to certain utility construction controlled by WPB Order U-1 but not to housing construction authorized by the National Housing Agency, which is subject to limited preference rating Order P-55-C.

Because of the current shortages of sheet steel, the amended schedule restricts the use of various fabricated items made of sheet steel and strip, including doors, electric metallic tubing, partitions—except toilet partitions, raceways and other items. It also restricts the use of fencing, tanks and tank towers. Restrictions on the use of metal lath, which were omitted in the Oct. 31, 1944, revision of the construction limitations, have been reinstated.

Plywood form liners are now prohibited, but tongue and groove lumber is permitted for forms where used lumber or plywood is not available. Western pine lumber is prohibited except for certain millwork. The use of lead and lead products is prohibited except for certain specified uses such as solder for joining purposes, paint and certain processing uses.

Changes also have been made in the equipment list of Schedule A in that a new paragraph has been added specifying what equipment may be bought with the rating assigned. This provision states that ratings assigned on authorizations issued on or after Feb. 17, 1945, may not be used to get furniture controlled by Orders L-13-b, L-260-a, or L-49. In addition the equipment lists have been amended to bring them up to date with other orders.

Ohio auditor opposes hiring extra engineers

Ohio State Auditor Joseph T. Ferguson has expressed opposition to a measure, passed in the Ohio Senate as an emergency bill, to permit the state highway department to hire outside help for drawing up plans for projects. He said the highway department had 329 engineers and 506 engineer aids in its drafting department and he considered outside help unnecessary. Senator E. E. Addison, Columbus, sponsor of the bill, had informed the Senate that the highway department had lost so much personnel that outside help was needed if postwar plans are to be ready when needed.

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Brig. Gen. Hans Kramer with river commission

Brig. Gen. Hans Kramer, former chief engineer, U. S. Army Forces in the Central Pacific Area with headquarters in Hawaii, recently was assigned as military assistant to the president of the Mississippi River Commission, Vicksburg, Miss., according to an announcement by Brig. Gen. M. C. Tyler, president of the commission.

General Kramer returned from his Pacific assignment last April because of illness suffered in service. On March 1 he was placed on the Army's retired list because of physical disability, but has been called back on active service duty with his present rank.

A 1918 graduate of West Point Military Academy, General Kramer holds a master of science degree from the University of Pennsylvania and a doctor of engineering degree from the University of Dresden, Germany.

Prior to his Pacific assignment, General Kramer was in charge of construction on the Third Locks project of the Panama Canal. From 1932 to 1935 he served as area engineer and later as chief of operations in the Memphis District, U. S. Army Engineers. In 1937, he led the successful fight against the flood along the main line Mississippi River levees in Arkansas from the Missouri state line to the mouth of the St. Francis River, working under the direction of the Memphis District Engineer, Lt. Col. Eugene Reybold, now major general and Chief of Engineers.

Expanded activities planned for A.C.C.

(Continued from page 3)

quarter of its estimated useful life. This, the resolution states, would stimulate construction by allowing potential purchasers of construction to secure the return of a large part of their investment during the period in which they could most clearly foresee a profitable return from their investment.

Rent control not favored

Another resolution opposed the proposed control of commercial rents by the Office of Price Administration, holding that this control would discourage improvements, remodeling and adequate maintenance and repair of commercial property. It is held that such control is not needed generally, and can be imposed locally where necessary, and that such control on a national scale would be not only costly, but also difficult to administer.

The "Constructiondizing" Award, presented by A. P. Greensfelder for the most notable achievement of the year in promoting the A.G.C., was given to H. E. Foreman, manager director, for his unceasing efforts in keeping the position of the general contractor before official Washington.

While only two members of the Secretary's Council were present, they announced the following new officers for the council: chairman, Frank H. Conner, Carolina branch; vice-chairman, Verne Warren, Spokane Chapter; and secretary, Milo Flickinger, Illinois Highway Chapter.

Ford J. Twaits, Los Angeles, Glenn W. Maxon, Dayton, Ohio, and Dwight Winkleman, Syracuse, N. Y., were re-elected chairmen of the building, heavy and highway contractors divisions, respectively.

The character, time and place of the next meeting were left to the executive committee for determination. In normal times the association holds two governing and advisory board meetings each year and one large convention. Since the start of the war the conventions have been reduced to governing board status but those meetings usually attract an attendance of between 150 and 200.

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Panama to have $7,000,000 airport

F. H. McGraw & Co. of New York have been awarded a contract for design, engineering services and inspection on a $7,000,000 airport for the government of Panama. The work will include a reinforced concrete terminal building, hangars and the field with one 7,500-ft. and one shorter runway planned for immediate construction.

Work is to be started at once on clearing, grading and some construction, but paving of the field, now foreseen as a 12-in. concrete slab, will not be undertaken until the 1946 dry season. It is expected that most of the construction will be contracted to local firms with only specialist work to be done by outsiders.

Direction of the work will be under L. P. O'Connor, general manager, and C. B. Hall, construction manager, of the foreign department of F. H. McGraw & Co. Both were with Pan American Airways and joined McGraw when that firm acquired the engineering and construction organization of PAA.

JOBS OF THE WEEK

TIRE FACTORY, Ottawa, Ill.

Darin & Armstrong, Inc., Detroit, Mich., has been awarded a contract by Inland Rubber Co., Chicago, Ill., for factory, office and power plant to cost about $2,500,000. Defense Plant Corporation will finance.

SHELL MANUFACTURING PLANT, Easton, Pa.

Lehigh Foundry Co., Easton, Pa., awarded a contract for altering buildings to become a shell manufacturing plant to Wigton Abbott Corp., Plainfield, N. J. The estimated cost is $1,000,000. Defense Plant Corporation will finance.

DWELLINGS, Washington, D. C.

National Capitol Housing Authority, Washington, D. C. awarded a contract for 440-dwelling units to T. C. Owen, Washington, D. C., at $2,130,758. Saarinen & Swanson, Washington, are the architects.

SHELL PLANT, Sheffield, Ala.

U. S. Engineers, Mobile, Ala., awarded a contract for a plant for forging and machining shells, at Sheffield Shell Plant to J. A. Jones Construction Co., Charlotte, N. C., at $1,029,222.

SHELL PLANT, Byesville, Ohio

Frank Messer & Sons, Inc., Cincinnati, Ohio, has been awarded a contract for a plant to manufacture heavy caliber shells by Cambridge Equipment Corp., % Lempco Products Corp., Bedford, Ohio., estimated cost including equipment is $1,700,000. The Defense Plant Corporation will finance.

SHELL MANUFACTURING PLANT, Allentown, Pa.

Mack International Motor Truck Corp., Allentown, Pa., has awarded a contract for altering buildings to become a shell manufacturing plant to Wigton Abbott Corporation, Plainfield, N. J. Estimated cost $1,000,000. The contractor will design and construct. The Defense Plant Corporation will finance.

HOSPITAL, Houston, Tex.

James Stewart & Co., Inc., Dallas, Tex., has been awarded a contract for constructing superstructure for Naval Hospital by Bureau of Yards & Docks, Navy Department, Washington, D. C., at $4,008,500. Buildings include hospital, administration and treatment building, subsistence and welfare building, ward buildings. Alfred C. Finn, Houston, is the architect.

FORGE PLANT and RESEARCH BUILDING, Worcester, Mass.

J. R. Worcester & Co., Boston, Mass., has been awarded a contract for 1-story, 400 x 180-ft. forge plant and research building by Wyman Gordon Products Corp., Worcester, Mass. The estimated cost is $3,000,000. The contractor will design and construct the project.

STEEL MILL, Cambridge, Ohio

Firestone Steel Products Co., Akron, awarded a contract for a plant to manufacture heavy duty steel rims to Boyajohn & Associates, Columbus. The estimated cost is $1,250,000.

INFIRMARY BUILDING, Lexington, Ky.

Veterans Administration, Washington, D. C., awarded a contract for infirmary building 28 to R. P. Farnsworth & Co. New Orleans, La., at $1,382,500.

Note—Additional bidding and contract news on many projects large and small appear in the Construction News section beginning on page 16.

OBITUARY

Alexander Mac Murdo, 53, for the last eight years superintendent of highway maintenance in Sangamon County, Ill., died at Auburn, Ill., on Friday, March 2.

Maj. Sam H. Perrine, formerly an engineer for the Kentucky State Department of Highway at Pikeville, Ky., was killed in action with the Army Engineers in Belgium recently.

Theodore G. Schweiger, 81, died recently at Kansas City, Mo. He established the Schweiger Contracting Co. of that city in 1888.

Otto F. Bengs, 78, Fort Wayne, Ind., contractor, died March 2. He was a former member of the Board of Public Works.

Lieut. Col. Wadsworth P. Clapp, 27, of East Orange, N. J., was killed in action in Germany, Feb. 22. He was graduated from West Point in 1941. Last Nov. 19 he received the Silver Star for gallantry in action. A major then, he commanded a battalion of Engineers who got the 10th Division across the Moselle River under fire just in time to help cut off the retreat of the Germans.

Albert Otis True, sanitary engineer for the Proximity Manufacturing Co. at Greensboro, N. C., for the last 23 years, died March 9. A graduate of M.I.T. in 1905, Mr. True was for some years with Hering & Fuller at New York before going to North Carolina on the sanitary work.

Frank J. Moran, 55, Omaha, Neb., owner and operator of the Moran Construction Co. for 23 years, and past president of the Nebraska Association of General Contractors died March 6.

Arthur O. Olson, 47, assistant bridge engineer with the Wisconsin Highway Commission for 22 years, died in Madison on March 3. He was a 1921 graduate of the University of Wisconsin.

John C. Bennett, with the Florida State Road Department for 17 years, died recently in Jacksonville, Fla.

Wright Hobby Palmer, 82, engineer and for the last 30 years owner of the waterworks system at Lake Como near Palatka, Fla., died there March 4.

New A.A.S.H.O. officers and committee named

Following the annual election of officers of the American Association of State Highway Officials, in Cincinnati, Ohio, last November, two of the newly-elected officers resigned from the association due to changes in their respective states. The executive committee of the association in a meeting held in Washington, Feb. 26 and 27 elected M. J. Hoffman, Commissioner of Highways of Minnesota as first vice-president of the association, succeeding Hal G. Sours, formerly director of highways of the state of Ohio, according to Hal Hale, secretary of the association. Bernard Touhey, State Highway Engineer of Arizona, was elected vice-president of the 4th district, succeeding Burwell Bantz, Director of Highways of the State of Washington. These newly-elected officers will serve for the year 1945.

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Preheated water supply for Fairbanks, Alaska

Fairbanks, Alaska, has voted a $350,817 bond issue to be used with a previously obtained $1,403,267 grant from the Federal Works Agency for the construction of an unusual water supply system.

The water will come from wells two miles outside the city but, before it can be distributed, it must be heated to raise its temperature from 34 to 38 deg. F. This will be accomplished by means of steam boilers.

The project, plans for which are being prepared by Engineer Black & Veatch, Kansas City, Mo., also include a sewage pumping plant, storm sewers, and the installation of protected fire hydrants.

MEETINGS

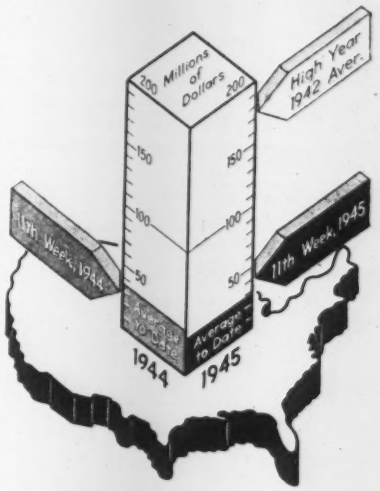
Regional and Local

CANADIAN SECTION, AMERICAN WATER WORKS ASSOCIATION, Toronto, Canada, March 19-21.

MONTANA SECTION, AMERICAN WATER WORKS ASSOCIATION, Lewiston, Mont., April 13-14.

NEW ENGLAND SEWAGE WORKS ASSOCIATION, spring meeting, Hotel Statler, Boston, Mass., May 2.

CONSTRUCTION ACTIVITY



As Reported This Week to... *Engineering News-Record*

CONTRACT VOLUME

Continental U. S. Only
(Thousands of Dollars)

	Week of Mar. 15 1945	Cumulative 1945 (11 wk.)	Cumulative 1944 (11 wk.)
Federal	$28,779	$184,049	$274,338
State & Municipal	1,527	31,359	28,609
Total Public	$30,306	$215,408	$302,947
Total Private	10,457	103,939	84,854
U. S. Total	$40,763	$319,347	$387,801

WHERE CONSTRUCTION ACTIVITY ORIGINATED THIS WEEK

Type of Work	Dollar Volume (Thousands) This Week	Cumulative 1945 (11 wk.)	Cumulative 1944 (11 wk.)
Waterworks	$394	$7,827	$5,944
Sewerage	368	7,156	5,284
Bridges	....	6,918	1,964
Highways	732	13,827	21,746
Earthwork, Waterways	148	6,656	11,325
Buildings, Public	26,025	133,980	165,680
Industrial	8,242	75,204	34,108
Commercial	1,927	19,539	42,425
Unclassified	2,927	48,240	99,325

NOTE: Minimum size projects included are: Waterworks and waterways projects, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

NEW PRODUCTIVE CAPITAL

	1945 (11 wk.)	Cumulative 1944 (11 wk.)
NON-FEDERAL	$126,311	$84,357
Corporate Securities	10,035	51,176
State and Municipal	116,281	27,406
RFC Loans	.....	5,775
FEDERAL	$77,137	$90,832
Total Capital	$203,448	$175,189

ENR INDEX NUMBERS

Index Base = 100		1913	1926
Construction Cost	Mar. '45	304.50	146.37
Building Cost	Mar. '45	237.85	128.57
Volume	Feb. '45	78	34

CONSTRUCTION REPORTS

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

ELSIE EAVES, Manager — *SCOTT McLEOD, Statistics* — *J. A. MAHONEY, Reports*

(Daily service also available—Write for details)

WATER SUPPLY

PROPOSED WORK

Fla., Clearwater—Bd. Comrs., Pinellas Co., Court House, exten. water treatment plant. S. K. Keller, Court House, engr.

†Fla., Opa-Locka — City, 400,000 gpdc. treatment plant, pump. facilities, installing 300 ft. 8 in. mains. $62,000. **FWA.**

†Mich., Buchanan — Town, well, pump, bldg., pipes and valves, transmission main, and sys. connections. $25,000. **FWA.**

Minn., Windom—City, C. O. Hofstrom, mayor, water sys. imprvs., incl. treatment plant. $15,000. Pfeifer & Schultz, 703 Wesley Temple Bldg., Minneapolis, engrs.

★**†Okla., Oklahoma City**—City, City Hall, 16 m.g.d.c. water treatment plant. $971,-569. **FWA.** CD 11/8—ENR 11/16.

Ore., Gearhart—City, City Hall, reconstructing water sys., involving 12,000 ft. 6- to 10-in. c.i. pipe, $40,000. R. H. Corey, Corbett Bldg., Portland, engr.

Pa., Aliquippa—Woodlawn Water Co., E. V. Grimshaw, asst. supt., 276 Sheffield Ave., 50,000 gal. steel elevated tank, $60,000. Morris Knowles, Inc., 1312 Park Bldg., Pittsburgh, engr.

†Tenn., Halls—Town, extend. water and sanitary sewerage sys. $80,000. **FWA.**

Wash., Ephrata—City, City Hall, bids soon 1 m.g. concrete tank reservoir and interconnecting pipelines. $72,000. Parker & Hill, Smith Tower, 2 St. and Yeslers Way, Seattle, Zone 4, engrs.

Wash., Kalama—City, City Hall, 14x22 ft., concrete pumphouse and concrete pit, 7,000 ft. 8 in. c.i. or asbestos cement distr. lines and 3 mi. electric lines. $30,000. R. H. Corey, Corbett Bldg., Portland, Ore., engr. CD 12/29—ENR 1/4.

Wash., Marietta — Marietta Water Dist., Marietta, water distr. sys., 55,000 ft. 2- to 8-in. pipe and 6,000 gal. cedar water storage tank. $110,000. Parker & Hill, Smith Tower, 2 St. and Yesler Way, Seattle, Zone 4, engrs.

Alta., Innisfail—Municipality, WW sys. $60,000.

B. C., Saanich—Municipality, water supply in Brenwood area. $50,000.

Ont., Aylmer — Pub. Utilities Comn., H. Gunstone, chn., Aylmer, water sys. About $75,000.

Ont., Belle River—Municipality, R. Sauve, clk., rein.-con. filtration plant, flush tank, gravel filter. About $75,000. G. G. Reid, 7 Edmund Ave., Toronto, engr.

Ont., Byron—Westminster Twp., watermains. $22,000.

Ont., Nobleton—King Twp., H. G. Rose, clk., Nobleton, installing pressure water sys. About $25,000. James, Proctor, Redfern, Ltd., Excelsior Life Bldg., Toronto, engrs.

Que., Gentilly—Municipality, exten. water sys. $15,000. J. V. Lavigne, Town Hall, engr.

Que., Quebec City—Municipality, watermains in Dorchester St. $21,200. E. Hamel, City Hall, engr.

BIDS ASKED

Bids Asked March 20

N. Y., Port Washington—At office W. A. Eaton, V. A. Trussel, and E. J. West, Comrs. Port Washington Water Dist., 163 Main St., well water sys., appurtenances. $75,000. Plans deposit $10. J. Homer Sanford, 500 Fifth Ave., New York, Zone 18, consult engr. CD 2/12—ENR 2/15.

Bids Asked March 21

Pa., Mansfield—C. M. Woolworth, secy. Dpt. Property & Supplies, concrete reservoir and standpipe fdn. repairs, at State Teachers College. Plans deposit $2.50.

Bids Asked in April

R. I., Pascoag—Pascoag Fire Dist., Rowland Gaunt, chn. Comn., Pascoag, ½ mi. piping connecting 2 wells with water supply sys. Over $15,000. CD 11/24—ENR 11/30.

Bids Asked April 3

Ga., Macon—Bd. Water Comrs., Macon, watermains, appurtenances. W. Walker, city engr.

Ky., Louisville—Louisville Water Co., B. E. Payne, ch. engr. and supt., 435 S. 3 St., (a) clarifier and miscellaneous construction (b) chemical handling equip. (c) chemical feed equip. (d) orifice meter (e) sluice gates and valves (f) mixing and clarifier equip. (g) CO_2 equip. Plans deposit $15 for (a) and $5 for each other contract. Alvord, Burdick & Howson, 20 N. Wacker Dr., Chicago, Ill., engrs.

LOW BIDDERS

Calif., San Francisco—City, Pub. Utilities Comn., City Hall, Mar. 6, laying 12 in. c.i. Class 250 main in Congo, Santa, Rosa, Mission and Brazil Sts., from Joost to Moscow Sts., Spec. 387, from E. J. Tobin, 1000 Carleton St., Berkeley, **$45,169.** CD 2/26.

†Tex., Fort Sam Houston—U. S. Eng., Fort Sam Houston, Mar. 1, changes in water distr. sys., San Antonio Army Service Forces Depot, Serial W-41-154-45-91, from Wharmund & Logan Co., 422 Hays St., San Antonio, **$28,774.** CD 2/27—ENR 3/1.

Tex., Houston—City, M. H. Westerman, secy., City Hall, 2 m.g. steel reservoir at East End Pump. Plant, from Pittsburgh-Des Moines Steel Corp., 101 Crawford St. **$29,315.** Est. $31,500. CD 2/27—ENR 3/1.

Tex., Houston—City, M. H. Westerman, secy., City Hall, Mar. 7, constructing finishing Well 18 at Central Pump Station, from Layne-Texas Constr. Co., 6931 Harrisburg Blvd. **$39,800.** CD 2/27—ENR 3/1.

Tex., Lamarque — Lamarque Developing Co., Lamarque, water sys., from E. Niles, Texas City, **$28,392.** Bids 3/24. Haile & McClendon, 2807 San Jacinto St., Houston, engrs.

Tex., Menard—City, City Hall, 1 m.g. elevated steel water tank, to Pittsburgh Des Moines Steel Co., Praetorian Bldg., Dallas, approx. **$20,000.** CD 2/13—ENR 2/15.

CONTRACTS AWARDED

Fla., Belle Glade—City, City Hall, 3 m.g. intake and pump station, 13,000 ft. 16 in. steel pipe, to Paul Smith Constr. Co., 320 N. Miami Ave., Miami. **$31,070.** CD 2/28.

†Ill., Rock Island—U. S. Eng., Clock Tower Bldg., Rock Island, water supply addns., Ordnance Center, Contr. W-11-117-eng-387, to W. E. O'Neil Constr. Co., 2751 N. Clayborn St., Chicago, **$163,500.**

Tex., Alice—City, B. O. Goldthorn, mayor, City Hall, drilling, casing, testing water well, to Layne-Texas Co., 3901 Elm St., Houston, **$16,550.** H. R. F. Helland, 900 Frost Bank Bldg., San Antonio, engr. Bids 3/5.

Location of ENR Correspondents

Symbols and Abbreviations Include:

† Federal Government
★ Project of $500,000 or over
ENR Engineering News-Record
CD Engineering News-Record Construction Daily

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger; water supply, earthwork, waterworks, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

Classes of Construction

(Name in order of Listing)

Water Supply
Sewers, Waste Disposal
Bridges
Streets & Roads
Earthwork, Waterways
Latin America
Public Buildings
Commercial Buildings
Industrial Buildings
Unclassified

Stages Reported

PROPOSED: (except Streets & Roads):

BIDS ASKED (new announcements only). For full calendar, see also preceding issues of ENR):

LOW BIDDERS: On jobs below $500,000 value all low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.

CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

SEWERS, WASTE DISPOSAL

PROPOSED WORK

†Mass., Northampton—City, reconstructing 4 sects. sanitary sewer, installing 6,800 ft. 10 and 12 in. sewer lines, manholes, etc., at U. S. Veterans Hospital. $28,990. **FWA.**

†Minn., Duluth—City, 2,370 lin. ft. sewer tank, sludge bed, appurtenant work for imprv. sewage collection sys. $28,000. **FWA.**

Pa., Phila.—City, J. H. Neeson, dir. Pub. Wks., bids soon storm sewer in 63 St. and Malvern Ave. $25,000. Thomas Buckley, City Hall, city engr.

Pa., Rochester—Rochester Boro, B. F. Ellis, secy., 426 Adams St., preliminary plans sewage disposal sys., addnl. facilities, $50,000. M. Baker, Jr., Baker Bldg., engr.

Pa., Stony Creek Mills—Antietam Woolen Mills, Lower Alsace Twp., sewerage treatment plant, Lower Alsace Twp. $25,000. $35,000.

Pa., Stony Creek Mills—City Laundry, Lower Alsace Twp., sewage treatment plant in Lower Alsace Twp. $26,000.

★**Va., Alexandria**—City Manager, City Hall, sewage treatment and disposal plant, $500,000. Greeley & Hansen, Adams Bldg., Norfolk, consult. engrs.

Wash., Grand Coulee—City, City Hall, sewerage sys. in Grand Coulee Heights Dist. $26,000. Parker & Hill, Smith Tower, 2 and Yesler Sts., Seattle, Zone 4, engrs.

Wis., Racine—City, City Hall, sewer repair in Racine St. $90,855. Wm. J. Chadwick, city engr.

Alta., Innisfail—Municipality, sewerage sys. $40,000.

N. B., Milltown—Municipality, sewers for housing development of Canadian Cotton, Ltd. $30,000.

Ont., Paris—Town, Wm. J. Haggett, clk., installing sewerage sys. $100,000. James, Proctor & Redfern, Ltd., 36 Toronto St., Toronto, engrs.

Que., Ste. Madelaine—Municipality, sewerage sys. $25,000. G. Bruneau, St. Hyacinthe, engr.

Sask., Melfort—Municipality, J. McLaughlin, supt. Works, Town Hall, sewage disposal imprvs., incl. installing sludge digester. $60,000.

Sask., Weyburn—Municipality, K. W. Blow, city clk., rein.-con. underground pump chamber at city sewage disposal plant, other imprvs. $35,000.

BIDS ASKED

Bids Asked March 20

Pa., New Kensington—City, L. G. Heinle, clk., City Bldg., 15- to 72-in. terra cotta and concrete sewer. $60,000. R. M. Douglas, Columbia Bldg., Pittsburgh, engr. CD 7/6—ENR 7/13.

Bids Asked March 28

Calif., Los Angeles—City, City Hall, 5,431 ft. vitr. clay sanitary sewer in Davana Rd. and Murietta Ave. $29,665. L. Aldrich, City Hall, engr.

Bids Asked After April 1

†Colo., Denver—U. S. Eng., 909 17 St., Denver, storm sewer, at Fitzsimmons General Hospital. $100,000. CD 11/28—ENR 11/30.

WERS, etc. (Cont'd.)

W BIDDERS

. C., Wash.—District Comrs., District ig. Mar. 1, Suburban Heights sewers and rmarina, 52 St. and Hayes Sts. N.E., from rooce Constr. Co., 331 S. Exeter St., Balore, Md., $25,827.

. C., Wash.—District Comrs., District ig. March 7, Benning Heights storm er sewer, Fall Terrace and E Sts. S.E., 49-177, from Robert Lombardi, Real te Trust Bldg., Phila., Pa. $25,893. FA.

lle, Bath—City, H. O. Trowbridge, chn., Andrews Rd., Mar. 3, refuse incinerator, th St., from Morse Boulger Destructor , 96 E. 42 St., New York, N. Y., $112,003. FA. CD 2/2—ENR 2/8.

Tex., Houston—City, M. H. Westerman, cy., City Hall, Feb. 21, approx. 700 ft. in. sanitary sewer in Leeland Ave. from ilac to Live Oak Sts., from R. P. Farnsth Constr. Co., Bankers Mortgage Bldg., ,361. CD 2/14.

Tex., Houston—City, M. H. Westerman, cy., City Hall, sanitary sewers in Benson, erman and Abernathy Sts., from J. Hefrman, 3252 Charleston St. $27,300. CD r—ENR 3/1.

Wis., Sheboygan—Bd. P. Wks., City Hall, r. 5, altering digestors, constructing ge dryer bldg., from F. Winninghoff, West Bend. $77,450; furnishing, installvacuum filters, from Eimco Corp., 634 St. W., Salt Lake City, Utah, $44,800. D 2/27.

ONTRACTS AWARDED

Pa., Primos—Kellett Aircraft Corp., 5701 ays Ave., Phila., sewer, to H. Gillespie, Clifton Ave., Collingdale. $25,000. arded 3/3.

Tex., Lamarque — Lamarque Developing , Lamarque, sewers, to L. H. McIntire, as City, $41,557. Bids 2/24. Haile & cClendon, 2507 San Jacinto St., Houston, grs.

BRIDGES

ROPOSED WORK

Me., Sanford—Town, Bd. Selectmen, Town all, bridge and road maintenance, $44,800. ppropriation voted.

Man., Winnipeg—Rural Municipality of itchot, c/o E. Brodeur, Legislative Bldg., th.-con., timber bridge, St. Mary's Rd. 6,000.

Ont., Galt—City, City Hall, railway crossg. About $75,000. R. M. Griffith, 32 Cromt., engr.

Que., Montreal—Municipality, bridge conecting Nun's Island with Pointe St. Charles, 5,000.

Que., Sherbrooke—City, City Hall, viaduct der Quebec Central Ry. tracks. About 4,000. J. E. Cote, City Hall, engr. CD /11—ENR 1/18.

IDS ASKED

Bids Asked March 20

Iowa—State Hy. Comn., Ames, 9 culvert repair jobs M-4296, Shelby Co.; 5 culvert repair obs, M-4398, Mills Co.; 7 culvert repair jobs, -4404, Fremont Co. F. R. White, Ames, a. engr.

Bids Asked March 21

Louisiana—State Hy. Dpt., D. W. Smith, r., Baton Rouge, repairing Mermentau iver Bridge at Grand Chenier on State oute 221, S.P. 194-02-06, Cameron Parish. D 1/9—ENR 1/11.

Bids Asked March 23

Alabama—G. R. Swift, dir., State Hy. pt., Montgomery, constructing 0.019 mi. idge on Florala-Lockhart Rd., S.P. S-561-B, ovington Co.

Bids Asked about June 1

Tennessee and Arkansas—Dpt. Highways P. Wks., States of Tennessee and Arkanas. Court House, Memphis, Tenn., substructure for bridge across Mississippi River. ids 3/23 cancelled. CD 3/3.

OW BIDDERS

Pa., Wilkes Barre—Bd. Comrs. Luzerne Co., Court House, Feb. 26, repairing highay bridge over Susquehanna River, from rsulas to Plymouth, from C. P. Goeringer onstr. Co., 55 S. Washington St., $573,000. . Leake, Union Trust Bldg., Harrisburg, gr. CD 3/21.

STREETS AND ROADS

IDS ASKED

Bids Asked March 20

Iowa—State Hy. Comn., Ames, maintenance resurfacing 9 mi. Iowa 17 from Rockwell City to Iowa 5, 0.5 mi. Iowa 124 from State Park to Iowa 17, M-1305, Calhoun Co.; 10.9 mi. Iowa 24 from Colmar to Lawler, 8.1 mi. Iowa 325 from Spillville to U. S. 52, M-2340, Chickasaw and Winneshiek Counties; 8.4 mi. Iowa 374 from Webb to U. S. 71, M-3340, Clay Co.; 9 mi. Iowa 4 from Sac Co. to end of pavement, 13.5 mi. U. S. 59, from Ida Co. to Iowa 141, M-3341, Crawford Co.; 7.2 mi. Iowa 14, from Iowa 57 to U. S. 20 M-1306, Grundy Co.; 4.9 mi. Iowa 298, from Kamrar to U. S. 69, 1.4 mi. Iowa 383 from Randall to U. S. 69, M-1307, Hamilton Co.; 12.1 mi. U. S. 59, from Ida Grove to Crawford Co., M-3342, Ida Co.; 7 mi. Iowa 96 from Tama Co. to Iowa 14, 5.6 mi. Iowa 233 from Albion to Iowa 14, 5.3 mi. Iowa 311 from Liscomb to Iowa 14, 6.3 mi. Iowa 14 from Jasper Co. to pavement 7.6 mi. Iowa 146 from Tama Co. to U. S. 30, 7 mi. Iowa 234 from State Center to Iowa, 64, 12 mi. Iowa 236 from Rhodes to Iowa 224, M-1308, Marshall Co.; 5.4 mi. Iowa 115 from Roland to Story City, 4.1 mi. Iowa 317 from McCallsburg to U. S. 65, 15 mi. Iowa 210 from Slater to Maxwell, 1 mi. Iowa 211 from Cambridge to Iowa 210, M-1309, Story Co.; 1 mi. Iowa 349 from Ahquabi State Park to U. S. 69, 6.9 mi. Iowa 207 from New Virginia to U. S. 60, 6.3 mi. Iowa 206 from Lacona to U. S. 65, 3.7 mi. Iowa 205 from Milo to U. S. 65, M-1310, Warren Co.; maintenance ditch excavation on U. S. 30 from Harrison Co. to Vail overhead on Iowa 141 from Monona Co. to Denison, on Iowa 4, from Denison to end of pavement, M-3308, Crawford Co. F. R. White, Ames, ch. engr.

Bids Asked March 22

Ia., Dakota City—Bd. Supervs. Humboldt Co., Dakota City, gravel resurfacing various secondary roads. V. Miller, Dakota City, co. engr.

Virginia—At Office Construction Engineer, Dpt. Hys., Richmond, furnishing, application bituminous material and application of state owned covered material 3,948,440 gal. Class B, 208,294 tons aggregate; 3,536,717 gal. Class C 187,127 tons aggregate; 2,637,980 gal. Class D; alternate bids, Fredericksburg Dist., 379,400 gal. Class B, 39,217 tons aggregate.

Bids Asked March 23

Alabama—G. R. Swift, dir. State Hy. Dpt., Montgomery, grading, drainage, double surface treatment 15.164 mi. Fyffe-Rainsville-Hennagar Rd., S.P. S-572 (2) & (4), DeKalb Co; constructing base course on 21.685 mi. Hamilton-Haleyville Rd., S.P. S-479, Marion Co.; base course, single surface treatment and plant mix 7.816 mi. Troy-Shady Grove Rd., S.P. 3-639, Pike Co.; base and double surface treatment 5.95 mi. Collinsville-Grossville Rd., S.P. S-406, DeKalb Co.; maintenance surfacing 12.13 mi. Wedgeworth-Greensboro Rd., S.P. MS3343-G, Hale Co. Plans deposit $10 each project.

Bids Asked March 27

Ohio—State Hy. Dpt., Columbus, drainage structures, erosion control, 2.37 mi. Sects. Rome and B of SH 7, US 52, Adams Co., $17,000; grading, drainage structures, rein.-con. paving 0.468 mi. Sect. Ripley of SH 7, US 52, Brown Co.; erosion control 3.862 mi. Sects. C and R of SH 370, US 36 and 250, Harrison Co., $19,370; widening, asphaltic concrete resurfacing 1.643 mi. Sect. F-2, of SH 350, Muskingum Co., $34,700; brick wearing course paving 0.337 mi. Sect. Canton of SH 56, Stark Co., $28,130; asphaltic concrete resurfacing 3.323 mi. Sects. J, Lima of SH 127 and 875, Allen Co. $32,150; 0.353 mi. Sect. Forest of SH 233 and 580, Hardin Co., $7,050; 0.408 mi. Sect. Logan of SH 360, US 33, Hocking Co., $12,350; 6.843 mi. Sects. A, A-2, and A-3 of SH 245, US 25 and on Sects. B and Troy of SH 196 and 471, Miami Co. $138,310.

Bids Asked April 4

New York—H. A. Cohen, dir. Bureau Contracts & Accounts, State Office Bldg., Albany, Zone 1, concrete paving 0.9 mi. Marcus Ave., (access road to Sperry Gyroscope Co. Inc.,) Contr. DA.SS. 45-1, Nassau Co. C. H. Sells, State Office Bldg., Albany Supt. P. Wks.; adv. ENR. 3/15.

Bids Asked

Texas—State Hy. Comn., Austin, rejected bids Feb. 28, grading, structures, flexible base and double asphalt surface treatment 7.353 mi. Hy. 136, F.A.S. 193-A (1), Potter Co. CD 3/6—ENR 3/8, under LB.

LOW BIDDERS

†D. C., Wash.—District Comrs., District Bldg., Mar. 5, imprv. alleys, etc., at 45 and Eads Sts., etc., D. C. 49-194-N, from Donaldson Paving Co., 20 Potomac S.W., $29,917; imprv. alleys, etc., at Sheriff Rd., Division Ave., D. C. 49-179-N, from Wilmoth Paving Co., Washington National Airport, Arlington, Va., $63,970. FWA.

Louisiana—State Dpt. Hys., Baton Rouge, Mar. 7, imprv. 16.9 mi. Calcasieu Parish, from O. K. Abernathy, Sulphur, $18,626***15.82 mi. Beauregard and Calcasieu Parishes, from W. R. Aldrich & Co., Kalwrah University Gardens, Baton Rouge, $27,407***18.55 mi. Allen Parish, from Barber Bros. Contg. Co., Reymond Bldg., Baton Rouge, $34,680. CD 3/10—ENR 3/1.

Michigan—State Hy. Dpt., Lansing, Feb. 28, bituminous non-skid surface treatment on M-78-M-43 and U.S. 112, Calhoun, Kalamazoo and St. Joseph Counties, and on M-89, M-113, M-43 and M-66, Allegan, Barry, Calhoun and Kalamazoo Counties, from Mid-America Eng. Corp., 4922 Dempster St., Skokie, Ill., $62,487 and $54,653 respectively***M-36, M-93 and M-106, Ingham, Jackson, Livingston and Washtenaw Counties, and on M-11 and M-124, Jackson and Washtenaw Counties, from Detroit Asphalt Pav. Co., 702 Transportation Bldg., Detroit, $44,184 and $39,293 respectively***U.S. 23, M-33, M-143 and M-212, Cheboygan and Presque Isle Counties, from Loselle Constr. Co., Box 30, Wyandotte, $69,627***M-20 and M-57, Mecosta and Montcalm Counties from Marsman & Taber, 415 Murray Bldg., Grand Rapids, $50,606.

Tex., Houston—City, M. H. Westerman, secy., City Hall, Feb. 28, permanent paving Gable St. from north end existing pavement on Gable St. near M.K.T. Depot to South end paved approach McKee St. bridge, from S.W., Gaylord Constr. Co., 806 Blodgett St., $27,518.

Tex., Houston—City, M. H. Westerman, secy., City Hall, furnishing, del., placing 10,000 tons hot asphalt concrete for street patching and maintenance, from Brown & Root, Inc., Box 3, $82,872.

Tex., Lamarque — Lamarque Developing Co., Lamarque, permanent paving, from G. Mora, 312 Sabine St., Houston, $104,680. Bids 2/24. Haile & McClendon, 2507 San Jacinto St., Houston, engrs.

★Virginia—State Hy. Dpt., Richmond, Mar. 8, imprv. 1.59 mi. Albermarle Co., from Lane Constr. Corp., 35 Colony St., Meriden, Conn., macadam. $519,517; from W. M. Jackson, Roanoke, and W. E. Graham, Cleveland, concrete. $592,280. CD 3/3.

CONTRACTS AWARDED

Ia., Jefferson—Bd. Supervs. Greene Co., Jefferson, maintenance resurfacing various secondary roads, to Ferguson & D'ehl Constr. Co., Jefferson, $49,200. Bids 3/5. CD 2/20.

Mass., Ludlow — Town, Bd. Selectmen, Town Hall, highway maintenance, road oiling, culverts, sidewalk maintenance, patching utilities, day labor. $34,500.

Tex., Houston—City, City Hall, 100,000 tons stabilized road shell, to Parker Bros. & Co., Inc., 5303 Navigation Blvd., $165,000.

†Va., Fort Story (br. Virginia Beach)—U. S. Eng., Fort Norfolk, paved recreation areas, to Ames & Webb, Inc., 3145 Broad Creek Rd., Norfolk, $54,309. Bids 2/20.

British Columbia—Provincial Govt., Victoria, diversion of Island Highway at Rosewall Creek, Nanaimo, to General Constr. Co., Ltd., Granville Island, Vancouver, $41,440. Dpt. Hys., Victoria, engr.

Ont., Carleton Place—Ramsay Twp., Carleton Place, road reconstruction, day labor, $25,000. O. H. Dezell, R.R. 1, engr.

Ont., Dundalk—Proton Twp., Dundalk, graveling roads, day labor. $30,000. F. Hendry, R.R. 1, engr.

Ont., Elmvale—Flos Twp., T. E. Smith, clk., Elmvale, road imprvs., day labor $25,000 voted.

Ont., Elmwood—Brant Twp., c/o M. A. McAllum, R.R. 1, graveling roads, day labor. $25,000. W. Abell, R.R. 4, Walkerton, engr.

Ont., Perth—Municipality, road reconstruction, repairs, day labor. $75,000. W. L. Dickson, Perth, engr.

Ont., Straffordville—Bayham Twp., c/o J. D. Vallee, road reconstruction, day labor, $[illegible].

EARTHWORK, WATERWAYS

PROPOSED WORK

Conn., Milford — Town, Bd. Selectmen, Town Hall, making plans repairing, reinforcing seawall, Woodmont and Morningside Beach. $25,000.

Mass., Chatham—Dpt. P. Wks., 100 Nashua St., Boston, dredging in Chatham Harbor. $25,000.

Mass., Provincetown—Town, Bd. Selectmen, Town Hall, dredging, making docking facilities deeper, etc. $15,000.

Ore., Hood River—East Fork Irrigation Dist., E. E. Lage, chn., Hood River, 1,200 ft. earth-fill dam, 100 ft. high with outlet works, on Neale Creek. $200,000. Sporseen & Associates, Platt Bldg., Portland, engrs.

Tex., Marshall Ford Dam—Lower Colorado River Auth., Marshall Ford Dam and Austin, addnl. work on Marshall Ford Dam, incl. rein.-con. walls, etc., for housing machinery, etc. $126,000.

★Tex., Rockland—Lower Neches Valley Auth., Beaumont, dam and canal on Neches River. $2,692,310. J. B. Converse & Co., Port Arthur, engrs. CD 7/3/42—ENR 7/9/42.

Tex., San Benito—International Boundry Comn., Farmers Bank Bldg., Rio Grande River bank protection works. $50,000. J. L. Lytle, Farmers Bank Bldg., engr.

★Quebec—Dpt. Agriculture, Hon. L. Barre, minister, Quebec City, plans draining farm lands various parts of province. $1,000,000.

LOW BIDDERS

Bids Asked March 19

Connecticut—State, Wm. J. Cox, hy. comr., State Office Bldg., Hartford, excav. channel for relocation Quinnipiac River,

EARTHWORK, etc. (Bids Asked, Cont'd.)

near Wilbur Cross Parkway, Wallingford. Plans deposit $1.02; trunk line, drainage installation adjacent to Main St. Rt. 15-A, Portland. Plans deposit 63c.

Bids Asked March 30

N. Y., Lindenhurst—Town Superv., Town Hall, 47 W. Main St., Babylon, jetties and dredging.

Bids Asked March 30

†Idaho, Coeur d'Alene—Farm Security Admin., 950 Bway., Denver, Colo., leveling 700 acres land and constructing drainage sys., laterals. $50,000. Extended date. CD 3/1—ENR 3/8.

LOW BIDDERS

†Idaho—U. S. Eng., 300 3 Ave., Seattle 4, Wash., exploratory drilling at Katka dam site, Kootenai River, Neg. 1103, Boundary Co., from Lynch Bros., 3425 Stone Way, Seattle 3, Wash., $16,780.

Wash., Renton—Boeing Aircraft Co., Seattle, 300 ft. timber, pile revetments, 30 ft. high, at Boeing Renton Plant, from Western Constr. Co., Arctic Bldg., 3 and Cherry Sts., Seattle, Zone 4, $62,700. Est. $80,000. Bids 2/3.

CONTRACTS AWARDED

Mo., Marshall—Teteseau Bend Levee Dist. of Saline Co., Marshall, drainage ditches, earth levees, near here, to List & Clark Const. Co., Railway Exchange Bldg., Kansas City, Mo., $100,893. Bids 2/27. CD 2/6—ENR 2/8.

Mo., Richmond—Levee Dist. 5, Ray Co., Richmond, approx. 195,000 cu. yd. earth embankment and 996 ft. culvert pipe with auto hinge type flap gates, to Clark Const. Co., Braymer, approx. $30,000. Bids 1/30. CD 1/4—ENR 1/11.

LATIN AMERICA

Brazil, Espirito Santo—State of Espirito Santo, Espirito Santo, plans bridge. 5,000,000 Cruzeiros.

Brazil, Espirito Santo—State of Espirito Santo, Espirito Santo, plans school. 1,000,000 Cruzeiros.

Brazil, Sao Paulo—Soc. Electroteenica Brasileira Ltda., 24 Rua Barao de Paranapiacaba, Sao Paulo, plans power station addns. $100,000 plus.

Brazil, Sao Paulo—State of Sao Paulo, Sao Paulo, plans by Federal Dpt. Agriculture, Rio de Janeiro, agricultural school. 1,000,000 Cruzeiros.

British Guiana, Georgetown — British Guiana Govt., Georgetown, plans Museum of Natural History. $250,000. Dpt. P. Wks., Georgetown, engrs.

British Guiana, Georgetown—Government of British Guiana, Georgetown, plans broadcasting station. $150,000.

Ecuador, Guayaquil—Municipality, plans waterworks installation. $200,000.

Mexico—Dpt. P. Wks. & Communications, Mexico City, and State of Chihuahua, plan highway between Chihuahua City and Ojinaga, Mexico (at Presidio, Tex.), $750,000.

Mexico, Hermosillo — Cemento Portland Nacional S. A., Hermosillo, plans 150 ton daily cap. cement plant. $500,000.

Mexico, Mexico City—Mario Padilla Campia, Londres, 222, Mexico, D. F., plans plant manufacturing glass test and assay Tubes, etc. $150,000.

Mexico, Mexico City—Estufas y Productos, Metalicos Aguila, S. A., Melchor Ocampo, 407, Col. Ansures, Mexico, D. F., plans plant manufacturing oil and tractoline fueled stoves, $150,000.

Mexico, Mexico City—Sosa Texcoco, S.A., V. Carranza, 44-213-16, Mexico City, plans bicarbonate of soda, caustic soda and soda ash preparation plant. $150,000.

Mexico, Mexico City—Municipality plans constructing 6 parking structures, complete with ramps and other services, to alleviate traffic conjestion. 30,000,000 pesos.

Mexico, Mexico City—Productos Congelados, S. A., Palma Norte, 402-42 Medico, D. F., Lic. Miguel Angel Corzo, rep., plans fish and seafood freeze plant, $200,000.

Mexico, Mexico City—Marcus Schutulmann,, Moreloa, 62, Mexico, D. F., plans plant manufacturing explosion-propelled Diesel type 10 to 100 hp. motors and centrifugal pumps for deep water well, $250,000.

Mexico, Puebla—Republic of Mexico, Mexico City, plans flood control, river regulation and dredging. $100,000. Ministry of Marine, Mexico City, engr.

Mexico, Tlalnepantla — Geza Weissmann, Comonfort, 6, Tlalnepantla, plans coffee extract factory. $125,000.

Panama, Ocu—Panama-Colon Co., Ocu, plans Spanish Colonial style hotel. $300,000.

Panama, Panama City—Dpt. P. Wks., R. Chiari, minister, plans airport, incl. 3 story rein.-con. terminal bldg., hangars, shops, warehouses, clearing, drainage, etc., between Tapia and Tocumen Rivers, beyond Old Panama. $7,000,000. F. H. McCraw & Co., 51 E. 42 St., New York, N. Y., engr. CD 2/19—ENR 3/1.

Uruguay, Montevideo—Compania Uruguaya de Navegacion Y' Transportes, Montevideo, plans airport, 1,500,000 pesos.

Venezuela, Caracas—Rayon Venezolana, S. A., Caracas, plans viscose fibres and yards mfg. plant. 1,500,000 bolivares.

PUBLIC BUILDINGS

PROPOSED WORK

★**†Ark., Pine Bluff**—U. S. Eng., 300 Bway., Little Rock, plant for production fibre containers, known as Ammunition Container Corp. Project, $1,200,000.

★**†Calif., Los Angeles**—Pub. Housing Auth., NHA, 760 Market St., San Francisco, 240 family war dwelling units, Calif 4037-N; $900,000; 40 family war dwelling units, Calif. 4050-N; $150,000; 80 family war dwelling units, Calif. 4054-N; $300,000.

†Calif., Port Chicago—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., architectural and engineering services by Punnet, Parez & Hutchinson, 58 Sutter St., San Francisco, magazines.

†Calif., San Diego—Pub. Housing Auth., NHA, 760 Market St., San Francisco, 40 family dwelling units, Calif. 4039-N. $150,000.

★**†Calif., Santa Ana**—Public Housing Auth., NHA, 760 Market St., San Francisco, will not construct 140 family war dwelling units, Calif. 4026. $500,000. Project cancelled. CD 2/16—ENR 2/22.

★**Calif., Vallejo**—Vallejo Unified School Dist. of Solano Co., 641 Caroline St., voted $600,000 bonds library bldg., auditorium bldg., school in Home Acres Beverly Hills area, gymnasium at Franklin Junior High School, classrooms and imprvs., at Franklin Junior High; voted $150,000 bonds, swimming pool on Junior College campus. H. J. Devine, Cronan Bldg., archt. CD 10/17—ENR 10/19.

†Conn., Naugatuck—Naugatuck Chemical Co., Elm St., preparing plans 3 story, 45x60 ft., brick, steel addn. to OEI unit factory, Elm St., for Rubber Reserve Co., 811 Vermont Ave. N.W., Wash. 25, D. C. $45,000. Fletcher Thompson, Inc., 211 State St., Bridgeport, engrs.

Conn., Newington—Newington Home for Crippled Children, Cedar St., bids soon hospital addn. Ebbets & Frid, 15 Lewis St., Hartford, archts.

Conn., Wallingford — Wallingford Boro, Warden & Burgesses, Town Hall, garage. $40,000.

★**†D. C., Anacosta**—Pub. Housing Auth., NHA, Longfellow Bldg., 1201 Connecticut Ave N.W., Wash. 25, D. C., rejected bids Mar. 6, 300 unit permanent housing, D.C. 1-6. Will readvertise. CD 2/7—ENR 2/22, under LB.

†D. C., Wash.—Bd. Educ., District Bldg., bids soon school, Stanton Rd., D.C. 49190. FWA. CD 2/23—ENR 3/1.

† D. C., Wash.—Pub. Bldgs. Admin., 18 and F Sts. N.W., cancelled bids to have been opened Mar. 23, Federal Office Bldg. 5 addn. To be awarded on negotiated basis. CD 3/6—ENR 3/8.

†Ind., Camp Atterbury—U. S. Eng., 612 Federal Bldg., Louisville, Ky., 6,000 bed convalescent center, incl. 20 bldgs., gymnasiums, occupational therapy, brace shop and physiotherapy bldgs., administration bldgs., library, etc., at Wakeman General and Convalescent Hospital.

Ind., Fort Wayne — O. H. Adams, genl. supt. City Utilities, Fort Wayne, 28x30 ft. lighting and power sub-station bldg., brick, concrete, in southern part of city, and 13 kv. transmission line from present Lafayette Substation to new station. $85,000.

†Ind., Gary—City, 2 story addn. Roosevelt School. $317,000. FWA.

★**†Kan., Topeka**—U. S. Eng., 10 E. 17 St., Kansas City, Mo., conversion of barracks to provide 462 addnl. beds, housing, utilities, grading, roads and walks at Winter General Hospital. $580,000.

★**†Md., Bethesda (br. Wash., D. C.)**—Pub. Bldgs. Admin., 18 and F. Sts. N.W., Wash. 25, D. C., bids soon laboratory bldg. $900,000. FWA. CD 2/19—ENR 2/22.

★**†Md., Suitland**—Federal Works Agency, 18 and F Sts. N.W., Wash. 25, D. C., bids soon Federal Office Bldg. 4. $1,500,000. CD 1/19—ENR 1/25.

★**†Mass., Camp Edwards**—U. S. Eng., 31 St. James Ave., Boston, constructing recreation bldgs., swimming pool, outdoor athletic facilities, library, etc., in convalescent hospital area. $858,000.

Mass., Chatham — Town Bd. Selectmen, Town Hall, plans by Edwards Sears Read & Assoc., 177 State St., Boston, two 1 story, 24x100 ft. fish packing houses, concrete, timber, foot of Barclift Ave. To exceed $40,000 with equip. H. E. Bailey, 177 State St., Boston, engr.

★**Mich., Detroit**—Bd. Educ., 1354 Bw Ave., plans by Pilafian, 112 Madison A 4 story, bamnt., limestone, brick, gl structural steel, concrete stu dent bldg., Wayne University. $1,000,000. CD 3/5, der Postwar Projects.

†Miss., Baldwyn—Federal Works Agen 18 and F Sts. N.W., Wash. 25, D. C., p office. $100,000.

†Mo., Kansas City—School Dist. 56, Ja son Co., school remodeling and ad $68,000. FWA.

★**†Mo., Kansas City**—Lee Tire & Rubb Co., Conshohoken, Pa., tire plant, $4,0 000. Defense Plant Corp. will finance.

N. C., Beaufort—City Bd. Educ., c/o Sup Beaufort, plans by B. H. Stevens, Beaufo rebuilding school. $300,000.

N. C., Bessemer City — Gaston Co. B Educ., H. Huss, supt., plans by Breese Co., Shelby, high school. To exce $150,000.

†N. C., Raleigh—Bureau of Mines, Inter Bldg., E St. between 18 and 19 Sts. N.W Wash. 25, D. C., bids soon first unit large minerals laboratory at North Ca lina State College Experiment Station. 12/5—ENR 12/7.

†N. C., Swannanoa—U. S. Eng., 308 Ch tom house, Wilmington, conversion 11 me cal barracks and 6 officers' quarters Moore General Hospital. $116,680.

†O., Cambridge — U. S. Eng., 925 N Federal Bldg., Pittsburgh, Pa., hospit bldgs., at Fletcher General Hospital, Ne here. $155,000.

★**†Okla., Boley** — Veterans Admin., Ve mont Ave. between H and I Sts. N.W Wash. 25, D. C., hospital for Negro Vete ans. $2,000,000.

†Ore., Eugene—Pub. Housing Auth., NHA Skinner Bldg., 5 and Union Sts., Seattle Wash., indefinitely postponed bids to ha been opened Mar. 14, 50 prefabricated fami housing units, $80,000. Wick, Scott & Me Devitt, Spalding Bldg., Portland, archt CD 3/5.

†Tenn., Trenton—Town, high school addn alterations. $87,000. FWA.

†Tex., Beaumont-Orange—Pub. Housin Auth., NHA, 1411 Electric Bldg., 7 an Lamar Sts., Fort Worth, Zone 2, site imprvs WW., sewerage, streets and roads, etc., fo 150 unit trailer housing. $75,000 exclusiv of trailers.

†Tex., Falfurrias—Pub. Housing Auth NHA, 1411 Electric Bldg., 7 and Lama Sts., Fort Worth, Zone 2, site imprvs., 2 unit trailer housing. $25,000.

†Tex., Fort Sam Houston—U. S. Eng., For Sam Houston, converting 12 bldgs. into mess halls, constructing meat preparation unit, incl. insulating and air conditioning pastry shop; exten. elec. distr. sys. and out side utilities, etc., Serial No. W-41-154-45-8 $150,000.

†Tex., McGregor—Pub. Housing Auth NHA, 1411 Electric Bldg., 7 and Lama Sts., Fort Worth, 200 unit housing $275,000.

Tex., Port Arthur—City, City Hall $150,000 bond election April 3, fire station N. Stewart, Adams Bldg., archt.

†Tex., San Antonio—Pub. Housing Auth NHA, 1411 Electric Bldg., 7 and Lamar Sts Fort Worth, Zone 2, plans by A. B. Ayre & R. M. Ayres, and N. S. Nohaeh, Alamo National Bank Bldg., San Antonio, 10 family stop-gap units, Tex. 31-697.

†Tex., Temple—U. S. Eng., Fort Sam Houston, bids soon housing for prisoners, incl wood frame mess hall addn., sewage lift station, fencing, service roads and parking areas, water and gas distr. and sanitary sewerage sys., electric distr. sys., etc., W-41 154-45-92.

Vt., Canaan—School Bd., Canaan, sketches by Heacock & Platt, 152 N. 15 St., Phila., Pa., 1 story brick grade and high school.

†Va., Fort Belvoir—U. S. Eng., 21 St. and Virginia Ave. N.W., Wash. 25, D. C., bids soon, warehouse facilities, railway trestle and concrete paving service area.

★**†Va., Fort Story (br. Virginia Beach)**—U. S. Eng., Fort Norfolk, Norfolk, constructing visual aid shop, bath houses, therapy bldgs., guest house, Red Cross bldgs., library, etc., convalescent hospital area. $500,000.

†Wash., Kennewick—Pub. Bldgs. Admin., 18 and F Sts. N.W., Wash. 25, D. C., 50-bed hospital, Wash 15-299. FWA. CD 11/8—ENR 11/16.

★**†Wash., Tacoma**—Tacoma Housing Auth., Provident Bldg., indefinitely postponed bids to have been opened Mar. 9, 192 dormitory units, Market and 17 Sts., Wash. 45307, for NHA. $200,000. Tacoma Architects Assn., Provident Bldg., archt. CD 2/27—ENR 3/1.

†Wis., Oshkosh — The Bell Machine Co., Oshkosh, plant bldg. $160,000. Defense Plant Corp. will finance.

★**Alta., Bowness**—Victory Hospital Comm., c/o W. D. Mathieson, Bowness, 128 bed hospital on 16 acre site for service and ex-service men. $600,000.

LIC BLDGS. (Proposed Work, Cont'd.)
..., Consort—Municipality, plans by ...-Wynn & Rule, 354 Birks Bldg., Edmon... hospital. $150,000.
..., C, Victoria—Victoria College Bd., Vic... college exten. $300,000.
..., Brandon—Wartime Housing, Ltd., ... York St., Toronto, 50 addnl. houses. ...t $175,000.
..., N. B., Moncton—Province of New Bruns... wick, Fredericton, technical school. ...t $500,000.
...foundland, St. John's—Newfoundland ...t. Railway, St. John's, repair shop addns. ...,000.
..., Ottawa—Dpt. P. Wks., Ottawa, plans ... S. D. Sutherland, c/o owner, hostel. About ...,000.
..., Ont., Sarnia—Wartime Housing, Ltd., ... York St., Toronto, 300 unit addnl. ...ing for servicemen's families. About ...,000.
..., Toronto—Municipality, plans by K. S. ...ins, City Hall, children's detention home, ...,000.
..., Que., Grand 'Mere—City, M. Crete, clk., ...,000 bed hospital. About $300,000.
..., Que., Pointe Claire—Dpt. Veteran's Affairs, ...ks, Ont., plans by L. P. Gauthier, Con... ...ration Bldg., Montreal, 100 houses for ...ans. About $350,000.
..., Que., Quebec City—Dominion Govt., Otta... cold storage plant addn. $50,000. Na... ...l Harbours Bd., Ottawa, Ont., engrs.
..., Que., Sherbrooke — Dominion Govt., c/o ...istry of Veteran's Affairs, Ottawa, plans ... L. P. Gauthier, 111 Confederation Bldg., ...ntreal, dwellings. $150,000.
..., Sask., Moose Jaw—Wartime Housing, ..., 55 York St., Toronto, Ont., 50 addnl. ...ses. About $175,000.
..., Sask., Regina—Wartime Housing, Ltd., 55 ...k St., Toronto, Ont., 100 addnl. houses. ...t $375,000.

...S ASKED

Bids Asked After March 13

...Tex., Fort Sam Houston—U. S. Eng., Fort ... Houston, hospital messes at Brooks Gen... ... Hospital, Serial No. 41-154-45-95 incl. ...closed walkways, connecting with adja... ...at war bldgs. service drives or parking ..., mechanical ventilation, etc.

Bids Asked March 20

...Va., Alexandria—City Manager, City Hall, ...story, brick, frame fire station, Cameron ...ls Rd. $40,000. J. H. Saunders, 315 ...g St., archt.
..., Que., Valcartier—Secy. Dpt. Munitions & ...ply, Ottawa, Ont., 2 ballistics laboratory ..., Valcartier Military Camp. $70,000.

Bids Asked March 21

...B. C., Vancouver—Secy. Dpt. Munitions & ...ply, Ottawa, Ont., constructing No. 5 ...inance and Engineering bldg. About ...,000-$100,000.

Bids Asked March 23

...N. C., Hoffman—Morrison Training School, ... S. E. Leonard, chn. N. C. Correctional ..., Revenue Bldg., Raleigh, laundry bldg., ...rations, addns., painting, cleaning & ele... ...ed steel water storage tank, deep well ...p, equip., new watermains. Northrup & ...rien, Winston Salem, archts.
...Wash., Anacortes—Pub. Housing Auth., ...A. Skinner Bldg., 5 Ave. and Union St., ...ttle, Zone 1, 65 units, 2 story, frame ...ing, Whidbey Island, Wash. 45814-N. ...art, Kirk & Durham, 4th and Cherry ..., Seattle, Zone 4, archts. CD 2/21—...R 3/1.

Bids Asked April 3

...Wis., Tomah—Veterans Admin., Ver... ...mont Ave., between H and I Sts. N.W., ...sh. 25, D.C., addnl. hospital bldgs., etc. ...,000. Extended date. CD 3/5—ENR ...5.

Bids Asked April 5

...D. C., Wash—Pub. Bldgs. Admin., 18 and ...Sts. N.W., Zone 25, nurses home at St. ...abeth's Hospital, D. C. 49133. $200,000. ...A. CD 10/27—ENR 11/16.

Bids Asked April 9

...N. J., Newark—Pub. Housing Auth., ...NHA, 270 Bway., New York 7, N. Y., ...ldgs., 275 unit family housing, N.J. 2-9 ... N.J. 2-10, incl. garage, administration ... $1,000,000. W. Lehman, 972 Broad ..., archt. CD 1/15 and 11/27—ENR 1/18 ... 11/30.

Bids Asked April 24

...N. D., Fargo—Veterans Admin., Vermont ... between H and I Sts. N.W., Wash. 25, ...C., addnl. bldgs., utilities, Project 2266. ... 12/22—ENR 12/28.

Bids Asked

...Tex., Sunray—Continental Carbon Co., ...27 Park Pl., New York, N. Y., addnl. ... bldg. at Carbon Black Plant. $600,000. ...nse Plant Corp. will finance. CD 3/20—...R 3/8.

...W BIDDERS

...Calif., San Diego—Bd. Educ., 2101 Com...rcial St., Feb. 28, 2 story, rein.-con. addn. ...a Junior High School, 1775 Chatsworth Blvd., Point Loma, Calif. 6-624-N. from Scherer & Prichard, 208½ Orange Ct., Redlands, $265,649. FWA. CD 2/20.

†**Idaho, Pocatello**—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle, Zone 1, Mar. 6, 80 family apartment units, from Carson Constr. Co., P. O. Box 1155, Helena, Mont., $187,757. CD 1/30—ENR 2/1.

†**Tex., Amarillo**—Pub. Housing Auth., NHA, 1411 Electric Bldg., 7 and Lamar Sts., Fort Worth, Zone 2, erection and site work, 500 family units, Tex. 41693, from McCann Constr. Co., 1313 Lancaster St., Fort Worth. $497,346. CD 2/16—ENR 2/22.

†**Wash., Tacoma**—Tacoma Housing Auth., Provident Bldg., Mar. 6, 216 addnl. dormitory units, American Lake Housing, for NHA, from H. R. Olsen, 4040 Pacific St., $158,486. CD 2/27—ENR 1/25.

CONTRACTS AWARDED

★†**Ala., Sheffield**—U. S. Eng., Grant St. west of Westwood St., Mobile, bldgs., utilities, etc., for forging and machining shells, at Sheffield Shell Plant, to J. A. Jones Constr. Co., Inc., 209 W. 4 St., Charlotte, N. C., $1,524,000.

†**Calif., San Francisco**—U. S. Eng., 74 New Montgomery St., gymnasium and swimming pool, at Letterman General Hospital, Spec. 1932 and 1943, to Robert McCarthy Co., 1050 Kirkham St., $245,121. CD 3/6—ENR 3/8, under LB.

†**Colo., Denver**—U. S. Eng., 909 17 St., Denver, remodeling 20 bldgs., Fitzsimmons Hospital, to Newstrom-Davis & Co., 3000 W. 8 Ave. Est. $150,000.

★†**D. C., Wash.**—National Capitol Housing Auth., 1737 L St. N.W., Zone 25, 440 unit dwellings, D.C. 1-13, to T. Calvin Owen, Albee Bldg., $2,130,758. Bids 2/15. CD 2/16—ENR 2/22 under LB.

†**Ga., Rome**—U. S. Eng., Post Office Bldg., Savannah, addnl. bldgs., at Battery General Hospital, BAT-11-45, to Christian & Bell, 101 Marietta St., Atlanta, $210,099. Bids 2/26.

†**Ill., Galesburg**—U. S. Eng., 520 Merchandise Mart, Chicago, 1 story, brick hospital, incl. recreation, barracks and administration bldgs., to J. Burton, 179 W. Washington St., Chicago, $311,900.

†**Ill., Hines**—U. S. Eng., 520 Merchandise Mart, Chicago, hospital facilities, 2 WAC barracks, recreation and administration bldgs., brick, 1 story, to William E. O'Neill Constr. Co., 2751 Clybourn St., Chicago, $277,221.

★†**Ill., Ottawa**—Inland Rubber Co., Ottawa, brick, concrete, steel tire factory, office and power plant, to Darin & Armstrong, 2041 Fenkell Ave., Detroit, Mich. $2,500,000. Defense Plant Corp. will Finance. CD 2/28—ENR 3/8.

★†**Ind., Charlestown**—U. S. Eng., 612 Federal Bldg., Louisville, Ky., addnl. loading facilities at Hoosier Ordnance Plant, to J. L. Simmons Co., Inc., Union Title Bldg., Indianapolis, $500,000. CD 2/23.

★†**Ky., Lexington**—Veterans Admin., Vermont Ave. between H and I Sts. N.W., Wash. 25, D. C., bldgs., utilities, to R. P. Farnsworth & Co., P. O. Box 850, New Orleans, La. $1,511,500. Bids 2/6. CD 2/8—ENR 2/15, under LB.

★†**Miss., Gulfport**—Veteran's Admin., Vermont Ave. between H and I Sts., N.W., Wash. 25, D. C., addnl. hospital bldgs., etc., to L. F. Favret Constr. Co., 937 Gravier St., New Orleans, La., $525,346. CD 3/5—ENR 3/8 under LB.

†**Neb., Grand Island**—U. S. Eng., 909 17 St., Denver, Colo., 2 dormitory bldgs. and boiler house at Cornhusker Ordnance Depot, to Geer-Maurer Const. Co., 315 N. Oak St., $155,000.

†**N. Y., Camp Upton**—U. S. Eng., 120 Wall St., New York, Zone 5, general rehabilitation and conversion of barracks, Contr. W-30-075-Eng-2483, at Convalescent Hospital, to James King & Son, Inc., 350 Fifth Ave., New York, $294,000. CD 3/7.

★†**O., Byesville**—Cambridge Equip. Corp., c/o Lempco Products Corp., Bedford, heavy caliber shell mfg. plant, north of here, to Frank Messer & Sons, Inc., 2515 Burnet St., Cincinnati. Est. $1,700,000 incl. equip. Defense Plant Corp. will finance.

★†**O., Cambridge**—Firestone Products Co., 1200 Firestone Parkway, Akron, imprv. steel mill which will produce heavy duty truck rims, for U. S. Eng., 925 New Federal Bldg., Pittsburgh, to Boyajohn & Associates, 990 W. 3 Ave., Columbus, approx. $1,250,000. CD 2/21—ENR 3/1.

†**O., Cambridge**—U. S. Eng., 925 New Federal Bldg., Pittsburgh, Pa., 11 permanent barracks to be converted into wards for wounded and constructing 12 theatre of operations type barracks, Fletcher General Hospital, near here, to E. Mast & Son, Zanesville. Est. $290,000.

★†**Pa., Allentown**—Mack International Motor Truck Corp., Union Blvd. and Graham St., design and construction shell mfg. plant conversion, to Wigton Abbott Corp., 1225 South Ave., Plainfield, N. J., $1,000,000. Defense Plant Corp. will finance. Awarded 3/3.

★†**Pa., Easton**—Lehigh Foundry Co., Easton, design and construction, shell mfg. plant conversion, to Wigton Abbott Corp., 1225 South Ave., Plainfield, N. J., $1,000,000. Defense Plant Corp. will finance. Awarded 3/3.

†**Pa., Mifflin Twp.** — Allegheny County Housing Auth., 201 County Office Bldg., Pittsburgh, site imprvs., Riverview Homes Housing, Pa. 36-221, for NHA, to Samkay Builders, Inc., 907 Law & Finance Bldg., Pittsburgh. $132,980. CD 12/5—ENR 12/7, under LB.

Pa., State College—Pennsylvania State College, Geo. W. Ebert, supt. Bldgs. & Grounds, State College, research laboratory, for Navy, to Henry E. Baton, Inc., 1717 Sansom St., Phila., $276,000. P. P. Cret, 1518 Walnut St., archt. Awarded 3/3. Wm. R. Sauter, 1700 Walnut St., engr.

†**Pa., Tarentum** — Allegheny County Housing Auth., 201 County Office Bldg., Pittsburgh, site imprvs., Sheldon Park Housing, Pa. 36-241, near here, for NHA to Boquet Constr. Co., 3622 Old Boston Rd., Pittsburgh. Est. $64,536.

S. D., Pierre—City, J. B. Griffin, mayor, City Hall, power generating unit, to Commonwealth Electric Co., 417 Bway., St. Paul, Minn. $127,997. Bids 2/6.

†**Tex., Corpus Christi**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., heating plant imprvs., Naval Hospital, NOY 11497, to Fortune-Blanke Mechanical Contractors, 2112-14 Mistletoe Blvd., Fort Worth, Zone 4, $60,989.

★†**Tex., Houston**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., superstructures administration bldg., Treatment Bldg. 1, Subsistance and Welfare Bldg. 2 and Ward Bldgs. 3 and 5, 4 and 6, Naval Hospital, to James Stewart & Co., Inc., 1415 Magnolia Bldg., Dallas. $4,038,000. Bids 3/1. CD 3/9, under LB.

★†**Va., Portsmouth**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., addnl. storage bldgs. etc., at Navy Yard, Spec. 15012, NOY 10615, to Allen J. Saville, Inc., 8 and Main Sts., Richmond, $767,954. Bids 2/23. CD 2/19, under CA.

†**Wash., Bremerton**—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle, Zone 1, nine 1 and 2 story dormitory wings and recreation bldg., Wash. 45306, to Nettleton & Baldwin, 1109 N. 36 St., Seattle, Zone 3. $377,400. Bids 3/7. CD 2/27—ENR 2/1.

★†**Wash., Renton**—U. S. Eng., 800 3 Ave., Seattle, Zone 4, two 200x825 ft. frame warehouses with timber piling fdns., railroad spurs, sanitary sewerage sys., etc., at Boeing Aircraft Co. plant, Neg. 1095, to A. F. Mowat Constr. Co. & John H. Sellen Constr. Co., 2833 Eastlake Ave., Seattle, Zone 2, $666,723. Bids 2/26. CD 3/5—ENR 3/8.

★†**Alaska, Hoonah**—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle 1, Wash., eighty 1 story, 20 x 30 ft. single family dwelling units, Alaska 50080, to Alaska Constr. Co., Baranof Hotel Bldg., Juneau, $551,000. H. B. Foss, Juneau, archt. ***site imprv. preliminary to construction of above, to A. Flick & J. Cushing, Sitka, $100,000***streets and electric wiring, to J. McKinley, Juneau, $24,000. Grand total $665,000. CD 9/6—ENR 9/14.

Man., Winnipeg—Dpt. P. Wks., Ottawa, Ont., boiler house, utility bldg., kitchen exten. at Deer Lodge Hospital, to G. A. Baert, 291 de Meurons St., St. Boniface, $207,000. C. D. Sutherland, c/o owner, archt.

Ont., St. Catharines—Dr. G. C. Shaver, supt., Niagara Peninsula Sanatorium, Merritton Hy., alterations, addns. sanatorium bldgs., to Rymer Bros., Ltd., 179 Lake St., about $270,000. CD 1/33—ENR 1/25.

Que., Quebec City—Dpt. P. Wks., Ottawa, Ont., temporary office bldg., North St. and Blvd. des Capucins, to Adelard Deslaurier & Sons, 68 Lalement St., $400,279. Est. $350,000. CD 2/21

COMMERCIAL BUILDINGS

PROPOSED WORK

Calif., Downey—Biltmore Homes, c/o H. Gibbs, archt., 441 E. 1 St., Long Beach, 50 frame, stucco dwellings. $200,000.

Conn., Newington—Newington Home for Crippled Children, Cedar St., plans by Ebbets & Frid, 15 Lewis St., Hartford, brick, steel surgical and isolation wing hospital addn. $150,000.

Del., Dover—Kent General Hospital, Inc., Mrs. I. H. Luff, supt., S. State St., surveys by Ballinger Co., 105 S. 12 St., Phila., Pa., hospital addn. $150,000.

Ind., Anderson—Anderson Imprvt. Co., 3705 Main St., 35 or more homes for factory workers, $175,000 or more.

Ind., Huntington—Lee Walls Co., M. Lee, prop., Huntington, 25 or more homes, $150,000 or more.

Ind., Huntington—Lincoln Housing Corp., Lincoln Tower Bldg., Fort Wayne, 25 or more homes in Lincoln Park, $150,000 or more.

COMMERCIAL BLDGS. (Proposed Work, Cont'd.)

Mass., Fall River—New England Tel. & Tel. Co., 50 Oliver St., Boston, soon lets contract brick, steel telephone bldg., N. Main St. $450,000. Extended date. Howe & Prout, 1016 Tucks Head Bldg., Providence, R. I., archts.

N. J., Somerville—Somerset Hospital, Rehill Ave., soon lets contract service bldg. Crow Lewis & Wick, 200 5 Ave., New York 10, N. Y., archts. CD 11/20—ENR 11/23.

R. I., Providence—Brown University, Prospect St., bids soon 40x200 ft. brick, concrete, brick veneer engineering research laboratory. $50,000-$75,000.

Wash., Oak Harbor—Oak Harbor Hospital Assn., Oak Harbor, plans by Naramore, Bain, Brady & Johanson, Smith Tower, 2 and Yesler Sts., Seattle, Zone 4, 1 story, part bsmnt., 114x192 ft. hospital, $135,000. FWA funds being sought.

★**Ont., Ottawa**—Carleton Realty Co. Ltd., 18 Rideau St., 100 houses, and 2 apartment blocks. Total about $800,000.

Ont., Toronto—Owner, c/o J. H. Haffa, archt., 96 W. Bloor St., apartment. $150,000.

Que., Montreal—D. Bloom, 397 W. St. Joseph Blvd., plans by H. E. Greenspoon, 1434 W. Ste. Catherine St., apartment. $150,000.

Que., Montreal—B. Segal, 882 Rockland Ave., dwellings. $150,000.

Que., Quebec City—Patronage St. Vincent de Paul, Abraham Hall plans by P. Levesque que, 115 St. John St., remodeling convent bldgs.

Que., St. Jules—Roman Catholic Parish of St. Jules, St. Jules, plans by P. Levesque, 115 St. John St., Quebec City, church and presbytery. $150,000.

Que., Victoriaville—Victoriaville Catholic School Comn., A. Gamache, pres., A. Bourbeau, secy., plans by A. Maingay, 105 Cote de la Montagne St., Quebec City, 2 story, bsmnt., 50x160 ft., rein.-con., brick school addn. About $175,000.

Que., Waterville—St. Joseph Orphanage, Waterville, plans by J. A. Poulin, 83 Prospect St., Sherbrooke, orphanage, $200,000.

BIDS ASKED

Tex., Raymondville—W. L. Rockey, Raymondville, thirty 1 story, frame, sheet rock residences, $100,000. Applying to FHA. CD 3/1—ENR 3/8.

CONTRACTS AWARDED

Calif., Downey—Santa Ana Homes Co., 1821 W. Whittier Blvd., Whittier, 37 frame, stucco dwellings. Owner builds. Approx. $350,000.

★**Calif., Millbrae**—Schultz Constr. Co., 1 Hillcrest Bldv., two hundred 2 and 3 bed-room type residences, in Bayside Manor tract between El Camino Real and Bayshore Hy., north of Millbrae Ave. Owner builds. $650,000.

Calif., Stockton—L. Rubino, 625 S. Della St., twenty 4-room and seventeen 5-room frame dwellings. Owner builds. $202,000.

Tex., Fort Stockton—Chamber of Commerce, Fort Stockton, fifty 1 story, masonry dwellings, to D. W. Quinn Constr. Co., Conclair Bldg., Fort Worth, $425,000. Consolidated Architects & Engineers, 1010 Fort Worth National Bank Bldg., Fort Worth, engrs. and archts. CD 11/9—ENR 11/16.

Wash., Seattle—Modern Home Builders, 3849 34 Ave. W., Zone 99, fifty-two 1 and 1½ story, bsmnt., frame houses, 37 Ave. W., in Viewmont Park, day labor, $300,000. L. W. Casey, 2212 Harvard Ave. N., Zone 12, archt. Morford & Mowry, Lyon Bldg., 3 and James Sts., Zone 4, engrs. CD 2/27—ENR 3/1.

INDUSTRIAL BUILDINGS

PROPOSED WORK

Ark., Jonesboro — PLANT — Jonesboro Grain Drying Corp., Jonesboro, rice drying plant, $100,000.

Ark., Stuttgart—MILL—Ark. Rice Growers Cooperative Assn., L. C. Carter, mgr., Stuttgart, rebuilding rice mill, $100,000.

★**Calif., Alturas**—BOX FACTORY, etc.—Goose Lake Box Co., Lakeview, Ore., box factory, sawmill and planning mill. $500,000. G. Hooker, Klamath Machine & Locomotive Co., Klamath Falls, Ore., engr.

★**Calif., Vernon**—WAREHOUSE—Brunswig Drug Co., 501 N. Main St., Los Angeles, plans by A. C. Martin, 233 Higgins Bldg., Los Angeles, 2 story, rein.-con., brick warehouse, air conditioning, at Santa Fe Ave. and 49 St. Over $500,000.

Colo., Pueblo—BUS DEPOT—Denver-Colorado Springs-Pueblo Motor Way, Inc., 501 17 St., Denver, rejected bids Feb. 13, 1 story, 75x90 ft., stucco on masonry bus depot. $40,000. W. H Simon, 2086 Dahlia St., Denver, archt. CD 1/23—ENR 1/26.

Ill., Chicago—MANUFACTURING—Bauer & Black, 2500 S. Dearborn St., soon lets contract 1 and 2 story, brick, concrete, steel, glass block mfg. addns. Battery & Childs, 231 S. LaSalle St., engrs. CD 2/9—ENR 2/16.

★**Ind., Columbus**—PLANT—Cummins Engine Co., Inc., Columbus, 1 story, 80x470 ft. plant bldg., on site of factory parking lot, next to the injector and fuel pump bldg. $625,000.

Mass., Brighton—GARAGE—Owner, c/o A. Winebaum, archt., 58 Devonshire St., Boston, 1 story, 100x160 ft., brick sales and service trailer garage, Highborn and N. Beacon Sts. $60,000.

Mass., Chelsea—PLANT—Panther-Panco Rubber Co., Inc., 31 Highland St., soon lets contract heating and process piping for mfg. bldg. To exceed $25,000. Waghorne-Brown Co., 101 Tremont St., Boston, archts.

Minn., Minneapolis—MANUFACTURING—Minneapolis Society for the Blind, B. M. Smith, exec. secy., 2335 Nicollet Ave., plans by Magney, Tusler & Setter, 302 Foshay Tower, 2 story, bsmnt., 75x126 ft., brick, rein.-con. mfg. bldg., $100,000.

N. J., Atlantic City—FACTORY—Dungan, Fry & Spence, 13-19 Atlantic Ave., rebuilding 3 story store and furniture factory, $175,000.

N. J., Little Ferry—ROUNDHOUSE—New York, Susquehanna & Western R.R. Co., F. C. Kronauer, ch. engr., 160 Market St., Paterson, Zone 1, altering roundhouse providing accommodations for new diesel locomotives, $110,000.

N. J., Secaucus—PLANT—Binda & Bial, archts., 2902 Bergenline Ave., Union City, soon let contract, 1 and 2 story, 50 x 80 ft., and 50 x 125 ft. metal salvage bldgs., and 1 story, 45 x 50 ft. boiler house, for Callite Tungsten Mfg. Co., 540-39th St., Union City. CD 10/10—ENR 10/12.

N. M., Rehoboth—POWER PLANT, etc.—Christian Reformed Bd. Missions, Rehoboth, plans by R. L. Linder, Insurance Bldg., Denver, Colo., power plant and distr. sys. $45,000.

N. Y., Buffalo—LABORATORY, etc.—General Chemical Co., 1050 S. Park Ave., soon lets contract laboratory and service bldg. O. Fisher, 154 Nassau St., New York, Zone 7, archt.

N. Y., Frewsburg—SHOP—Eck Tool Co., J. A. Ecklund, mgr., 106 E. 1 St., Jamestown, 1 story, 119x340 ft., stamping shop, Maple St. To exceed $40,000 with equip.

O., Avon Lake—PLANT—B. F. Goodrich Co., 500 S. Main St., Akron, experimental war chemical plant, near here.

Ore., Dillard—SAWMILL—Roseburg Lumber Co., Roseburg, frame sawmill, $98,500. J. R. Jorgensen, Cottage Grove, engr.

O., Toledo—PLANT—Sun Oil Co., C. H. Thayer, ch. engr., Sun Oil Bldg., 1608 Walnut St., Phila., Pa., completed plans synthetic rubber plant addn. $200,000.

Ore., Salem—PLANT—Capitol Lumber Co., 248 N. Cherry St., prestolog plant addn. $58,386. R. T. Bowling, Potlatch Forests, Inc., Lewiston, Idaho, engr.

Pa., Black Horse (P. O. Norristown)—MANUFACTURING — L. Crank Market & Sons, School House Lane, Black Horse, mfg. bldg. addn. $40,000.

Pa., Phila.—LAUNDRY—Walton Hotel, Broad and Locust Sts., repairing laundry. Approx. $45,000.

Pa., Phila.—PICKER—Imperial Constructors, Inc., Main and Rector Sts., Manayunk, rebuilding picker bldg. $50,000.

★**Pa., West Pittsburg** — PLANT — Oliver Iron & Steel Corp., 1001 Muriel St., SS Pittsburgh, 1 story, brick shell plant alterations, hydraulic lines, electric plumbing, and 2,000 KVA transformer, $700,000 incl. equip. C. D. Overly, 1001 Muriel St., Pittsburgh, engr.

Tex., Bay City—PLANT—Central Engineering Co., engr., Larendon Bldg., 1210 Texas Ave., Houston, soon lets contract 30,000 bbl. rice drying plant for Bay City Rice Drying Co., Bay City. Bids 2/10 rejected. CD 2/20—ENR 3/1, under LB.

Tex., Dallas—SHOP—M. Bullis, 3913 Commerce St., shop, $40,000. F. J. Warner, 911 Clermont St., engr.

Tex., Edinburg—STORAGE AND SHOP—Hughes Tractor Co., 116 N. 12 St., auto storage and shop bldg. $45,000. Site purchased.

Tex., Edinburg—REPAIR SHOP, etc.—Union Bus Line, c/o J. Amberson, 107 Kayton St., San Antonio, mechanical repair shop and terminal, incl. loading ramps, etc. $30,000. Site purchased.

Tex., Katy—PLANT—Dow Chemical Co., Freeport and M & M Bldg., Houston, soon lets contract metering and filtering bldg. $50,000. CD 2/19—ENR 2/22.

Tex., McAllen—PLANT—Denton Canning Co., McAllen, 1 and 2 story citrus and vegetable canning plant, brick, concrete. $45,000.

Tex., Pearsall—STORAGE—Sanders Mercantile Co., Pearsall, plans by W. N. Noonan, 720 Travis Bldg., San Antonio, 32x125 ft., bsmnt., rein.-con. storage bldg. $40,000.

Tex., Pittsburg—PLANT—Gilbert C. Wilson Laboratories, Pittsburg, reconstructing 75x200 ft. burned-out dehydrated potato plant, $100,000.

Va., Martinsville—PLANT—E. I. du Pont de Nemours & Co., du Pont Bldg., Wilmington, Del., exten. nylon plant incl. storage and shipping facilities. $400,000.

Alta., Calgary—GARAGE—The Freeman Wilson Co., Ltd., 107-6th Ave., garage, 612 Centre St. $90,000.

B. C., Clearwater—LUMBER MILL—Swanson Lumber Co., Clearwater, lumber mill and allied plants, $70,000.

B. C., Crows Nest—PLANT—Crows Nest Pass Electric Light & Power Co., Ltd., Crows Nest, plant addns. $40,000.

B. C., Elko—PLANT—East Kootenay Power & Light Co., Ltd., Elko, plant addn. $49,919.

★**B. C., Nanaimo** — HYDRO-ELECTRIC PLANT, etc.—Nanaimo-Duncan Utilities Ltd., Nanaimo, hydro-electric plant and imprv. distr. sys. $3,000,000.

B. C., Kootenay—PLANT—West Kootenay Power & Light Co., Ltd., Kootenay, plant extens. $410,000.

B. C., Penticton—PLANT—Penticton Cooperative Grocers, Penticton, bldg. addn. on Lakeshore Dr., $86,500.

B. C., Prince George—PLANT—Northern B. C. Power Co., Ltd., Prince George, plant addns. $40,000.

B. C., Trail—PLANT EXTENSIONS—Consolidated Mining & Smelting Co., Ltd., 215 W. St. James St., Montreal, Que., plant extens. $45,000.

Man., Winnipeg—WAREHOUSE—Western Grocers, Ltd., Market St., warehouse, $200,000.

N. B., Florenceville — CREAMERY, etc.—Cooperative Creamery, Inc., c/o J. Davis, Glassville, creamery and dairy products, $40,000.

N. B., Saint John—PLANT—Brantford Roofing Maritimes, Ltd., Saint John, plant expan. $50,000.

N. W. T., Yellowknife—DIAMOND DRILLING—Atlas Yellowknife Gold Mines Ltd., Yellowknife, diamond drilling campaign, $135,000. General Engineering Co., 100 W. Adelaide St., Toronto, Ont., engrs.

N. S., Cold Brook (Postal District Kentville)—PLANT—United Fruit Companies of Nova Scotia, c/o R. J. Leslie, Kentville, cold storage and packing plant. $75,000.

N. S., Halifax—WAREHOUSE—Nova Scotia Fruit Growers Assn., Halifax, modern cold storage warehouse, on Railway siding. $60,000.

N. S., Middleton—PLANT—Wallen & Sons, Middleton, woodworking plant, $40,000.

Ont., Belleville—SUBSTATION—Belleville Utilities Comn., O. N. Cott, genl. mgr., 331 William St., substation, Catherine and Bleeney Sts., with high tension pole line. $40,000.

Ont., Billings' Bridge—PLANT, etc.—Ottawa Electric Heat & Power Co., Ltd., 56 Sparks St., Ottawa, building and transmission line. About $130,000.

★**Ont., Kitchener** — FACTORY — Dominion Rubber Co. Ltd., 145 Strange St., plans by Prack & Prack, 36 James St., Hamilton, factory addn., King St. About $1,000,000.

Ont., Kitchener—PLANT—N. Hoffinger, 626 King St., Preston, cold storage plant. $40,000.

★**Ont., Leamington**—PLANT—H. J. Heinz Co., Ltd., M. S. Dixon, mgr., Leamington, plant extens. $1,000,000.

Ont., Red Lake—DIAMOND DRILLING, etc.—McMarmac Red Lake Gold Mines Ltd., Red Lake, diamond drilling and surface work. $65,000.

Ont., St. Thomas—MACHINE SHOP—New York Central System, S. P. Armstrong, ch. engr., M. W., 466 Lexington Ave., New York 17, N. Y., machine shop. About $200,000.

Ont., South Porcupine—DIAMOND DRILLING—New Augarita Porcupine Mines Ltd., South Porcupine, plans diamond drilling, adjoining East Dome Mine. $50,000.

Ont., Toronto—PLANT—B. Moore & Co., Ltd., 14 Mulock Ave., plant. $40,000.

Ont., Toronto—PLANT—Petroleum, Ltd., 75 Summitt Ave., 2 story, brick plant addn. About $45,000.

Que., Lennoxville — FACTORY — Union Screen Plate Co. of Canada, Ltd., 7 Main St., plans by A. B. Belanger, 128 N. Queen St., Sherbrooke, factory addn. $40,000.

Que., Montreal—QUARRY BLDGS.—La-Salle Quarry, Ltd., 5412 St. Michael Blvd., quarry bldgs., etc. $50,000. R. LeBlanc, c/o owner, engr.

Que., St. Laurent (Postal Dist. Montreal)—FACTORY— Owner, c/o L. E. Marshall, engr., Canada Cement Bldg., Montreal, factory. $50,000.

Que., Thetford Mines—GRINDING MILL—Flint Kote Mines Ltd., Thetford Mines, grinding mill. $40,000.

Sask., Saskatoon—PLANT—Modern Press Ltd., 462 3 Ave. W., plans by Webster & Gilbert, C.P.R. Bldg., plant addn. About $75,000.

BIDS ASKED

Bids Asked March 10

R. I., Cranston—FOUNDATION, etc.—Atlantic Tubing & Rubber Co., Mill St., foundation, rigging and erecting 84 ft. rubber mills, large presses and calenders, Mill St. CD 2/19—ENR 2/22.

Bids Asked March 24

N. J., Fairview—BUS TERMINAL and GARAGE—C. G. Mettberg, archt., 79 W. Palisade Blvd., Palisades, 125 x 350 ft. bus terminal and garage, Anderson Ave. near

NDUSTRIAL BLDGS. (Bids Asked, Cont'd.)
eservoir, for Orange & Black Bus Line Co., 00 Park Ave., Guttenberg, $75,000. CD /13—ENR 2/15.

Bids Asked March 28

N. Y., New York—PLANT—Dairymen's League Corp. Assoc., 11 W. 42 St., Zone 17, ilk plant, factory, garage, repair shop, Ave. between W. 47 and 48 Sts. $650,000. Feld, 103 Park Ave., Zone 17, archt. CD /2—ENR 1/11, under Postwar Projects.

Bids Asked April 2

N. J., Flemington—WAREHOUSE—Delaware Valley Farmers Cooperative Assn., renton Ave., Frenchtown, 1 story, 90 x 170 ., concrete block warehouse. $100,000. A ogers, 125 Morningside Dr., Trenton, archt.

Bids Asked

Pa., McKeesport—Manufacturing Tube Co., R. Cox, exec. vice-pres., Frick Bldg., ittsburgh, 1 story, 150x675 ft., brick, steel fg. bldg. addns., alterations.

Tex., McAllen—PLANT—Rio Sun Co., cAllen, 1 and 2 story citrus and vegetable rocessing plant, steel, rein.-con., metal. 75,000. CD 2/15—ENR 2/22.

Alaska, Fairbanks—LAUNDRY—Fairbanks aundry Co., Fairbanks, 1 story, 70x90 ft., ein.-con. laundry, $60,000. A. A. Shay, rchit., and S. Ivarson, engr., both Skinner Bldg., 5 and Union Sts., Seattle 1, Wash. D 1/28—ENR 3/8.

Ont., Thornbury—PLANT EXPANSION—Georgian Bay Fruit Growers, G. H. Mitchell, gr., 30,000 bbl. c. exten. to cold storage lant, new receiving plant and shipping oom. E. H. Darling, 36 James St. S., Hamilton, engr.

Ont., Thorold—PACKING PLANT—J. C. Klehn & Associates, engrs., 49 King St. E., Kitchener, packing plant for Essex Packing Co., Ltd., Thorold. CD 9/15—ENR 9/21.

Ont., Welland—FACTORY—Buffwell Engineering & Machine Co., 301 Major St., 1 tory, 31 x 138 ft., steel, concrete block factory addn., concrete block fdn., $45,000. . A. Kerns, 40 Main St. E., archt.

Que., Iberville—PLANT—R. D. Brodie, c/o Brodies, Ltd., 138 9 Ave., 75 x 200 ft. granite works plant, steel, cement block and brick. 55,000. CD 2/8.

Que., Montreal—PLANT—Z. Chartrand, 890 Frontenac St., artificial ice plant, etc. 60,000.

CONTRACTS AWARDED

Ala., Montgomery—TIRE PLANT—Wilbanks Tire & Recapping Co., 227 N. Court St., 1 story, 50x230 ft., steel trusses, masonry tire plant, to A. Berney Jones, 409 Monroe St., $42,700. C. Pearson & F. L. Tittle, 1st Natl. Bank Bldg., engrs.

Calif., Los Angeles—WAREHOUSE—Westinghouse Electric Co., 902 E. 2 St., 2 story, 120x130 ft., rein.-con., concrete warehouse, to M. J. Brock & Sons, 170 N. Larchmont Blvd., $80,000. R. Benedict Brout, 1709 W. 8 St., archt.

Calif., San Diego—PLANT—Solar Aircraft Co., Harbor Dr., exten. Orophammer Bldg., 43x63 ft., steel, timber, to Trepte Constr. Co., 2001 Kettner St., approx. $55,000.

Calif., San Jose — WAREHOUSE — Continental Can Co., Inc., 8 and Taylor Sts., San Jose, 160 x 258 ft., rein.-con., warehouse, to Austin Co., 1001 Ray Bldg., Oakland. Est. $80,000.

Colo., Denver—DIESEL SHOP—Chicago, Burlington & Quincy R. R. Co., H. R. Clarke, sh. engr., 547 W. Jackson Blvd., Chicago, Ill., diesel shop, to Mead & Mount Constr. Co., Denver National Bldg. Est. over $100,000. CD 2/13—ENR 2/15.

Colo., Denver—PLANT—Fox Co., 1630 Blake St., 3 bldgs. for mfg plant, to F. J. Kirchhof Constr. Co., 700 Lawrence St., $75,000. R. L. Linder, Insurance Bldg., archt.

Conn., Waterbury — FACTORY — Benrus Watch Co., Inc., 30 Cherry St., rehabilitating brick, steel factory, to H. Wales Lines Co., 134 State St., Meriden. Est. $50,000. H. T. Moekel, 35 Hillcrest Ave., Naugatuck, archt. L. F. Caproni, 1231 Chapel St., New Haven, engr.

Ga., Atlanta — PLANT — Westinghouse Electric & Mfg. Co., 1299 Northside Dr. N.W., plant addn., to Ray M. Lee Co., 337 W. Peachtree St. N.E., $112,000. Robert & Co., Bona Allen Bldg., engrs. CD 1/31—ENR 2/1.

Mass., Braintree — PLANT — Armstrong Cork Co., Hancock St., 2 story, brick, concrete plant addn., to Clark & Smith, Inc., 1272 Hancock St., Quincy. Over $40,000. CD 2/5—ENR 2/8.

Mass., Palmer—PLANT BLDGS.—Wickwire Spencer Steel Co., 30 Webster St., Worcester, 1 story, concrete, brick, steel addn. to rope layer and reel bldgs., to Abercrombie Co., 10 Federal St., Boston, approx. $100,000.

Mass., Walpole—PLANT—Ranger Co., 2000 Main St., brick, steel plant, to Fabrina Brothers, Inc., 61 Bridge St., Newton. Est. $60,000. CD 2/12—ENR 2/15.

★**Mass., Worcester**—PLANT—Wyman Gordon Products Corp., 105 Madison St., design and construct 1 story, 180 x 400 ft., concrete, brick, steel forge plant and research bldg., to J. R. Worcester & Co., 79 Milk St., Boston, approx. $3,000,000.

Mich., Detroit — PLANT — Timken-Detroit Axle Co., 100 Clark Ave., 1 story, brick, steel, concrete plant addn., to Couse & Westphal, 12740 Lyndon St. Est. $75,000. CD 1/12—ENR 1/18.

Minn., Minneapolis—FACTORY — Northwest Automatic Products Co., F. W. Griswold, secy-treas., 170 Lyndale Ave., N., general contract rebuilding 1 story, 150x200 ft., rein.-con. factory, to T. M. Carlson, 5021 Thomas Ave. S. Est. over $10,000. Lang & Raugland, 502 Wesley Temple Bldg., archts.

Mo., Poplar Bluff—POWER PLANT—Missouri Utilities Co., H. B. Newman, pres., Cape Girardeau, power plant, to McCarthy Bros. Constr. Co., 4903 Delmar Blvd., St. Louis, $129,995. Bids 2/20. Black & Veatch, 4706 Bway., Kansas City, Mo., engrs.

N. J., Newark—WAREHOUSE, etc.—Flake Bros. Refining Co., 129 Lockwood St., 2 story, 50 x 175 ft., brick warehouse and mfg bldg., to Oschwald Constr. Co., 854 Clinton Ave., $100,000. R. Klein, 944 Broad St., archt.

O., Columbus—BOILER HOUSE—Union Depot Co., 270 N. High St., 1 story, boiler house addn., to Trapp Constr. Co., 255 E. Broad St., Columbus, $71,000.

Ore., Portland—WAREHOUSE—Hawley Gilbert Co., 420 N. Thompson St., 1 story, rein.-con. warehouse, to C. Shoblom, 6448 S.E. Division St., $25,000. Awarded 3/9.

Ore., Portland—WAREHOUSE—Hudson-Duncan & Co., 325 S.E. Water St., warehouse addn., force account, $93,000.

Ore., Tillamook — MILL — Aberdeen Plywood Corp., Aberdeen, Wash., peeler mill, to Donald M. Drake Co., Lewis Bldg., Portland. Est. $60,000. CD 1/23—ENR 1/25.

★**Pa., Neville Island (br. Pittsburgh)**—SHELL PLANT—Dravo Corp., A. J. Ackerman, dir. Engineering, Neville Island, altering shell plant, to Booth & Flinn Co., 1942 Forbes St., Pittsburgh, $600,000.

Pa., Phila. — WAREHOUSES — Philco Corp., Tioga and C Sts., altering 2 warehouses, to Jack S. Steele Co., 1316 Arch St., $75,000. Awarded 3/2. CD 2/6—ENR 2/8.

Pa., Pittsburgh—FACTORY—Palley Mfg. Co., K. J. Lewis, pres. and mgr., 1017 Bidwell St., general contract 2 story, bamnt., 63x75 ft., and 1 story, 60x100 ft., brick factory bldg. addns., to Branna Constr. Corp., 406 Bessemer Bldg. Marks & Simboli, 702 Grogan Bldg., archts.

Pa., Pittsburgh — FACTORY — Steel City Electric Co., W. I. Patterson, pres., 1207 Columbus Ave., 1 story, 120x135 ft., brick factory addn., to The Trimble Co., 1719 Pennsylvania Ave. Est. $110,000.

Pa., Ruffsdale—DISTILLERY, etc.—Dillinger Distilleries, I. R. Weiner, 12 S. 12 St., R. M. Rowell, mgr., Phila., rebuilding 4 story, brick, steel frame distillery and grain storage bldgs., to Groomes Constr. Co., Highland Ave., Springdale. Est. $100,000. J. W. Hoover, Keystone Bldg., Pittsburgh, archt. CD 1/29—ENR 2/1.

★**Tex., Carthage**—PLANT—United Gas Corp., United Gas Bldg., Houston, dismantling recycling plant at Myrtle, La. transporting and reerecting here, force account, $750,000. CD 3/8.

Tex., Dallas—INDUSTRIAL—E. G. Paige, 925 Glasgow St., 1 story, 100 x 125 ft., concrete, brick industrial bldg., to J. C. Everett, 3207 Mockingbird Lane, approx. $40,000. CD 3/2—ENR 3/8.

Tex., Dallas—INDUSTRIAL and STORAGE—Victory Tire & Rubber Co., 5316 E. Grand St., 1 story, concrete, brick, metal industrial and storage bldg., to Cowdin Bros., 411 S. Haskell St., approx. $40,000. CD 3/8.

Tex., Dallas—FACTORY—Vulcan Bearing Co., 3101 Commerce St., 1 story, 100x125 ft. factory. Owner builds. Approx. $50,000. Consolidated Architects & Engineers, 1010 Fort Worth National Bank Bldg., Fort Worth, engrs. and archts. CD 10/24—ENR 10/26.

Tex., Fort Worth—PLANT—H. M. Stallings, 3614 Crestline St., laundry plant, force account. Approx. $40,000. Consolidated Architects & Engineers, Fort Worth National Bank Bldg., engrs. and archts. CD 3/27—ENR 3/1.

Tex., Houston—ROUNDHOUSE—Southern Pacific Lines, R. W. Barnes, ch. engr., Southern Pacific Bldg., structural steel, brick, hollow tile, concrete railway roundhouse, to Crawford Constr. Co., McAllen, $250,000. CD 9/27—ENR 10/5.

Tex., McAllen — PLANT — Marshall Canning Co., McAllen, 1 and 2 story citrus and vegetable canning plant, brick, rein.-con., force account. Approx. $40,000.

Tex., McAllen—WAREHOUSE—J. E. Morgan Co., 501 Highway, 1 story, brick, rein.-con. warehouse, force account. Approx. $40,000. CD 2/27—ENR 3/1.

Tex., Mission—PLANT—Bordo Products Co., Mission, 50x100 ft., brick, hollow tile processing plant, to Port Industries, Brownsville, approx. $60,000. Awarded 3/3. CD 1/31—ENR 1/25.

Tex., Raymondville—SLAUGHTER HOUSE—McManus & Sons, Raymondville, slaughter house, force account. Approx. $40,000. Julian & White, 2901 Transit Tower Bldg., San Antonio, archts. CD 2/27—ENR 3/1.

Utah, Salt Lake City—ICE PLANT PLATFORM, etc.—Pacific Fruit Express Co., 85-2 St., San Francisco, Calif., icing platform, cross-over bridge and related facilities to ice plant, to Cannon Constr. Co., 915 So. 7th West St., Bids 2/15.

Wis., Bloomer—MILK PLANT—Chippewa County Co-Operative Dairy, Bloomer, 1 story, bamnt., 70 x 100 ft. milk plant, brick, tile, steel, concrete fdn., to Carl H. Peterson & Co., 2920 S. 27 Ave. CD 11/21—ENR 11/30.

Wis., Kenosha—PLANT—Nash-Kelvinator Co., Kenosha, brick, steel, concrete body receiving bldg., to Permanent Constr. Co., W. Capitol Dr. and N.E. St., Milwaukee, Zone 12, approx. $150,000. Giffels & Vallet, 1000 Marquette Bldg., Detroit, Mich., engrs.

Ont., Leaside — SUB-STATION — Hydro-Electric Power Comn. of Ontario, 620 University Ave., Toronto, hydro sub-station, own forces. About $45,000.

Ont., Toronto—FACTORY—Rearea, Ltd., 57 Wolsley St., rebuilding factory, to R. G. Kirby & Sons, Ltd., 539 Yonge St., about $50,000.

Ont., Toronto — PLANT — Horwood & White, archts., 229 Yonge St., Toronto, 3 story, 83x130 ft. Glyptal plant, steel frame, brick, concrete fdn., for Canadian General Electric Co. Ltd., 212 King St. W., to Anglin-Norcross, Ontario, Ltd., 57 Bloor St. W., $130,000. Bids 2/23. CD 2/16—ENR 3/1.

Ont., Toronto—RAILWAY BLDG.—Canadian Pacific Ry. Co., J. E. Armstrong, ch. engr., Windsor Station, Montreal, Que., yard office bldg., at Parkdale Yard, to Bradford-Hoskal, Ltd., 1170 Yonge St. About $30,000. CD 2/5—ENR 2/8.

Ont., Toronto — FACTORY — Swith Canadian Co., Ltd., 1960 St. Clair Ave. W., 4 story, brick, tile factory, to Richard & B. A. Ryan, Ltd., 1808 William St. About $120,000. CD 3/8.

UNCLASSIFIED

PROPOSED WORK

Kan., El Dorado—AIRPORT—City, W. E. Robbins, mayor, City Hall, $100,000 bond election Apr. 3, airport.

La., Little Rigolets—WHARF—W. W. Eckert, 5859 Vicksburg St., New Orleans, T shaped timber wharf on timber pile fdns., exten. to channel at right angles to shore line.

Louisiana—WHARF—F. W. Sewart, Berwick, 50 ft. timber wharf, 29 ft. wide, timber pile fdn., and installing 4 clusters of 3 piles each in Atchafalaya River, St. Mary's Parish.

Louisiana—PIPELINE—The Texas Pipeline Co., Texas Co. Bldg., Houston, Tex., installation, maintenance 8 in. pipeline under and across Gulf Intracoastal Waterway Atchafalaya River-Vermillion River section at point about 5 ft. west of existing 8 in. pipe line approx. 0.5 mi. west of Atchafalaya River, near Berwick, and about 93.9 mi. west of Harvey Lock in St. Mary Parish.

La., Patterson—DRILLING and BOILER BARGES, etc.—The Texas Co., 919 St. Charles St., New Orleans, installing drilling and boiler barges, safety line timber walkway and appurtenant structures for drilling exploratory well, St. Mary's Parish.

Mass., Chatham—PIER—Town, Bd. Selectmen, Town Hall, 105 ft. fish pier, 50 ft. wide, foot of Barcliff Ave. To exceed $40,000. Edward Sears Read & Assoc., 177 State St., Boston, Mass., archts. H. E. Bailey, 177 State St., Boston, engr.

N. J., Beach Haven—BOARDWALK—Beach Haven Boro. Boro Hall, 2,000 ft. boardwalk and walkways, 20 ft. wide, $75,000 Sherman & Sleeper, 501 Cooper St., Camden, engrs.

†**N. C., Cherry Point**—AIR STATION BLDG.—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., synthetic trainer bldg. and lecture hall, Marine Corps Air Station, NOY 11011.

★**Oklahoma, Michigan and Ohio** — GAS PIPELINE — American Light & Traction Co., United Light & Power Co., c/o Wm. G. Woolfolk, 105 W. Adams St., Chicago, Ill., 1,085 mi. 22 and 26 in. natural gas pipeline from Hugoton, Okla., to near Detroit, Mich., and Toledo, O. $51,500,000. CD 11/8—ENR 11/16.

★†**Ore., Portland**—SHIPYARD BLDG.—U. S. Maritime Comn., 14 St. between E St. and Constitution Ave. N.W., Wash. 25, D. C., 8 in-plant feeding units at Oregon Shipbuilding Corp (Kaiser), $418,137; 6 in-plant feeding units at Kaiser's Swan Island Shipyard, $326,431.

Ore., Portland—TOWERS—Port of Portland Comn., J. P. Doyle, mgr., bids soon repairing 10 towers on pontoons on No. 1 drydock. $75,000.

†**Pa., Phila.**—AERONAUTICAL ENGINE LABORATORY—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash.

UNCLASSIFIED (Proposed Work, Cont'd.)

35, D. C., architectural and engineering services by Jaros, Baum & Bolles, 415 Lexington Ave., New York, N. Y., aeronautical engine laboratory, Navy Yard.

†Pa., Phila. — FIRE ALARM SYSTEM — U. S. Eng., Standard Oil Bldg., Baltimore, Md., preparing plans coded fire alarm sys., Hog Island. $21,700.

★**Texas and Mexico**—GAS PIPELINE CARRIER—Reynosa Pipe Line Co., Nixon Bldg., Corpus Christi, Tex., will not construct 160 mi. 14 in. natural gas pipeline carrier between area in Weslaco, Tex., and Monterrey, Mexico. $1,250,000. Project abandoned. CD 11/21—ENR 11/30.

★**Texas and Ohio**—GAS PIPELINE—Metropolitan Eastern Corp., 50 Church St., New York, N. Y., 825 mi. 18 in. natural gas pipeline from east Texas gas fields to Ohio, incl. 5 compressor stations, $23,500,000.

Texas—PIPELINE—Reynosa Pipe Line Co., Nixon Bldg., Corpus Christi, will not construct 30 mi. 12¾ in. steel pipeline carrier between point in Hidalgo Co., running to Rio Grande River, and 3,000 ft. 8⅝ in. steel pipe under the river bed. $325,000. Project abandoned. CD 1/15—ENR 1/18.

Texas—RURAL ELECTRIC EXTENSIONS —Cooke Co. Electric Cooperative, Muenster, rural electric line exten., Cooke Co. $30,000 REA allot.

Texas—RURAL ELECTRIC EXTENSIONS —Lower Colorado River Electric Cooperative, Giddings, rural electric service exten., Lee Co. $50,000 REA allot.

Texas—RURAL ELECTRIC EXTENSIONS —Pedernales Electric Cooperative, Johnson City, rural electric line exten., Blanco Co. $50,000 REA allot.

†Tex., Dalhart—GUNNERY TRAINER RANGE—U. S. Eng., 416 Wright Bldg., Tulsa 3, Okla., dismantling, salvaging, loading electric power line at Poorman Flexible Gunnery Trainer Range, Serial No. 34-066-45-33. $25,000.

Tex., Freeport—STORAGE—Dow Chemical Co., Freeport, and M & M Bldg., Houston, soon lets contract high-pressure steel storage. $30,000.

Tex., Galveston—LIGHTING SYSTEM—Galveston Co., c/o Judge, Galveston, lighting sys., for Seawall Blvd. $50,000.

Wash., Everett—STORAGE TANK—Tidewater Associated Oil Co., Associated Div., 79 Montgomery St., San Francisco, Calif., installing 10,000 bbl. steel fuel oil storage tank. $26,170.

Wash., Port Angeles—FISH TERMINAL—Port of Port Angeles, Port Angeles, voted bonds commercial fish terminal. $175,000.

†Wash., Vancouver—SHIPYARD BLDG.—U. S. Maritime Comn., 14 St. between E St. and Constitution Ave. N.W., Wash. 25, D. C., constructing 9 in-plant feeding units at Kaiser Shipbuilding Corp., Vancouver shipyard. $359,432.

Alta., Edmonton — RADIO STATION — Province of Alberta, Edmonton, plans by Dpt. P. Wks., Edmonton, radio station. $100,000.

Alta., Innisfail—SKATING RINK, etc.—Municipality, skating rink and swimming pool. $30,000.

★**N. B., Fredericton**—POWER DEVELOPMENT—Provincial Govt., Fredericton, hydro-power development near Cox Point on the St. John River, 12 mi. above here. $500,000.

N. B., Newcastle—PIERS—Fraser Companies Ltd., Newcastle, piers from Gasperian Pointe to Robinson Wharf. $40,000.

Nova Scotia—RURAL ELECTRIFICATION —Provincial Govt., Halifax, rural electrification. $2,775,000. N. S. Power Comm., Halifax, engr.

★**N. S., Inverness**—POWER DEVELOPMENT—Province of Nova Scotia, Halifax, power development. $1,000,000. Nova Scotia Power Comm., Halifax, engr.

N. S., North Sydney—WHARVES AND SHEDS, etc.—Newfoundland Govt. Railway, St. John's, imprv. wharves, sheds, and steamer terminals. $50,000.

Ont., Atwood—SKATING RINK, etc.—Municipality, C. Little, clk., City Hall, skating rink and recreational centre. $30,000.

Ont., Brantford—SERVICE STATION—C. B. Draper, 85 Park Ave., service station and repairs. $30,000.

Ont., Fergus—DAM—Grand Valley Conservation Com., 24 Edgerton St., Brantford, dam on Conestogo River. About $35,000.

★**Quebec** — POWER LINES — Shawinigan Engineering Co., c/o Shawinigan Water & Power Co., 107 Craig St. W., Montreal, 300 mi. power lines in rural centres in connection with rural electrification program. About $700,000. J. A. McCrary, c/o owner, engr.

Que., Montreal—BATHING FACILITIES, etc.—Municipality bathing and recreational facilities on Nun's Island. $40,000.

Que., Montreal—SWIMMING POOL, etc. —Graduates Society of McGill University, c/o Air Vice-Marchall F. M. McGill, McGill University, swimming pool and war memorial hall as addn. to Sir Arthur Currie Memorial Gymnasium-Armory. Over $150,000.

Que., St. Johns—CABLES—Bell Telephone Co., Beaver Hall Hill, Montreal, placing cables underground. $40,000.

Que., St. Malo (Postal District Quebec City)—WIDENING TUNNEL—Canadian Pacific Ry. Co., J. E. Armstrong, ch. engr., Windsor Station, Montreal, widening tunnel from Anse Au Foulon. $70,000.

BIDS ASKED

Bids Asked After March 13

†Neb., Sidney—RAILROAD TRACKAGE—U. S. Eng., 909 17 St., Denver, Colo., 4,000 sq.ft. railroad trackage, at Sioux Ordnance Plant.

Bids Asked March 19

N. Y., New York—DINING TERRACE—Commissioner Parks, office of Dpt. Parks, Arsenal Bldg., Central Park, 64 St. and 5 Ave., Zone 21, dining terrace adjacent to zoo cafeteria, Central Park, Contr. M-10-345.

Bids Asked March 20

†Ga., Rome—SPRINKLER SYSTEM—U. S. Eng., Post Office Bldg., Savannah, sprinkler sys. in walkways and bldgs, Battey General Hospital.

N. J., Sea Girt—BOARDWALK, etc.—Sea Girt Boro, Boro Hall, reconstructing boardwalk and walkways, $50,000. C. Birdsall, 1700 F St., Belmar, engr.

N. Y., Brooklyn—GRADING, etc.—Dpt. P. Wks., Municipal Bldg., Zone 7, New York, grading, seeding lawns, maintenance of grounds at Coney Island Sewage Treatment Works, Knapp St. and Avenue Z. Plans deposit $5.

N. Y., West Albany—INSPECTION SHED —New York Central System, S. E. Armstrong, ch. engr., 466 Lexington Ave., New York, Zone 17, exten. inspection shed.

Bids Asked March 22

†Mass., Peabody—APPROACH CONTROL FAN MARKER—Civil Aeronautics Admin., 385 Madison Ave., New York, N. Y., VHF construction, approach control fan marker, near here, Proposal 1-45-525.

Bids Asked March 30

N. Y., Bear Mountain—DOCK REPAIRS—Padisades Interstate Park Comn., Administration Bldg., dock repairs, replacing fender and cluster piles, recapping approx. 120 timber supporting piles under dock decking., adv. ENR 3/15.

Bids Asked April 3

Nebraska—TRANSMISSION LINES, etc. —Secretary Loup River Public Power Dist., 2416-14 St., Columbus, 55 mi. kv, 3-phase transmission line between Grand Island and Tamora; 90 mi. between Columbus and Omaha; erecting switching station known as Tamora Junction Station, near Ramora, P.W.A. Docket 665-3-P.F.

Bids Asked

R. I., Newport—BEACH REPAIRS—Noel & Miller, archts., 18 E. 48 St., New York, N. Y., rebuilding hurricane damages at Spouting Rock Beach, incl. cabanas, bathhouses, pavilions, for Sporting Rock Beach Assoc., Public Wks. Dpt., Newport.

LOW BIDDERS

†Tex., Fort Sam Houston—AUTOMATIC SPRINKLER SYSTEM—U. S. Eng., Fort Sam Houston, installing automatic sprinkler sys., in Bldgs. 90 and 94, in S.A.A.S.F. Depot, Ser. No. W-41-154-45-81, from Texas Automatic Sprinkler Co., 1029 Milam Bldg., San Antonio, $39,080. CD 2/19.

Tex., Houston—RAILROAD TRACK—Harris Co. Navigation Dist., c/o Port Com., J. Russell Wait, secy., approx. 12,000 ft. railroad track in port yards, from Wm. A. Smith Constr. Co., Citizens State Bank Bldg., $64,426.

CONTRACTS AWARDED

†Ark., Pine Bluff—SPRINKLER SYSTEM —U. S. Eng., 300 Bway., Little Rock, installing sprinkler protection at Pine Bluff Arsenal, Contr. W-03-050-eng-246, to Perkins Automatic Sprinkler Co., 417 E. Markham St., Little Rock, $47,476.

Calif., Richmond — SHIPYARD BLDG. — H. J. Kaiser Co.; Latham Square Bldg., Oakland, installing, fabricating bilge and keel blocks and rigging at Repair Facilities Basin Richmond Shipyard 3, to J. Philip Murphy, 696 Pennsylvania Ave. and 22 St., San Francisco, over $25,000.

†Calif., Victorville—HANGAR—U. S. Eng., 751 S. Figueroa St., Los Angeles, hangar, Army Airfield, Inv. 224, to Steel Bros., 714 Date Ave., Alhambra. $148,994. Bids 2/3.

†Ga., Savannah—HANGAR—U. S. Eng., Post Office Bldg., 2 hangars, Type HANG-R-A, Chatham Army Airfield, Ser. No. CJAT-43-45, to Wright Contg. Co., Columbus. $324,129. CD 1/30—ENR 2/1.

†Ind., Jeffersonville — AUTOMATIC SPRINKLERS—U. S. Eng., 612 Federal Bldg., Louisville, Ky., installing automatic sprinklers, Contr. W-15-029-eng-795, Quartermaster Depot, to Century Sprinkler Corp., 305 Graham St., Richmond, Va., $382,859.

†Kan., Topeka—AIRFIELD IMPROVEMENTS—U. S. Eng., 10 E. 17 St., Kansas City, Mo., excav., paving, reshaping, shoulders, etc., Army Air Field, Contr. W-34-023-eng-737, to Koss Constr. Co., 205 Old Colony Bldg., Des Moines, Ia., $228,804. CD 1/8—ENR 1/11.

†Ky., Godman Field (br. Fort Knox)—SWIMMING POOL—U. S. Eng., 612 Federal Bldg., Louisville, swimming pool, Contr. W-15-029-eng.-794, to E. A. Wehr Constr. Co., 2215 Waterdale Terrace, Louisville, $46,939.

Mass., Ludlow—PARK DEVELOPMENT—Town, Bd. Selectmen, Town Hall, park development, day labor. $25,000.

†Mass., Nantucket—HANGAR, etc.—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., export type hangar and boiler house at airport, NOY 11477, to M. Slotnick, 332 Washington St., Boston, $51,986. CD 1/18.

†Nev., Fallon—AIR STATION FACILITIES —Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., rocket facilities, Naval Auxiliary Air Station, Spec. 1572, NOY, 11406, to Dodge Constr. Co., Fallon, $99,743.

N. J., Atlantic Highlands—PIERS, etc.—Harbor Comn. of Atlantic Highlands, Boro Hall, repairing piers and bulkheads, Yacht Harbor, to Wm. Bahr Co., 2 Bay Ave., $34,876. C. Finnegan, 186 East End Ave., Belford, engr.

N. J., Belmar—BOARDWALK, etc.—Belmar Boro, Boro Hall, boardwalk and bathhouse repairs, to Cayuga Constr. Co., 18 Vesey St., New York, N. Y., $78,610. C. Birdsall, 1700 F St., South Belmar; engr. CD 11/8—ENR 11/16.

†N. J., Earle—TRACK MAINTENANCE, etc.—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., track maintenance and new spur, Naval Ammunition Depot, NOY 11605, to George M. Brewster & Son, Inc., 275 Fort Lee Rd., Bogota, $66,860.

†N. M., Roswell—HANGAR—U. S. Eng., P. O. Box 1538, Albuquerque, double hangar, relocating bldgs., asphalt paving, to Hayner & Burn, Las Cruces. $367,714. Awarded 1/31. CD 2/15—ENR 2/22.

†N. Y., Tompkinsville—PIER REPAIRS—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., repair collision damage Pier 10, Frontier Base, NOY 12014, to Spearin, Preston & Burrowa, 50 Church St., New York, $27,700.

†N. Y., West Point—LIGHTING, etc.—U. S. Eng., 120 Wall St., New York, Zone 5, lighting, painting, to Emerson-Garden Elec. Co., Inc., 40 W. Scott Pl., Elizabeth, N. J., $33,022.

N. C., Gastonia—AIRPORT PAVING, etc. —City, paving, seeding airport, to R. B. Tyler Co., Monroe, $49,974. P. T. Withers, Gastonia, engr.

†Pa., Middletown—STORAGE FACILITIES—U. S. Eng., Standard Oil Bldg., Baltimore, Md., storage facilities, Middletown Air Depot, Contr. 18-020-eng-776, to H. B. Alexander & Son, 3 and Vaughn Sts., Harrisburg, $30,047.

†Tex., Camp Howze (br. Gainesville)—TRAINING AIDS, etc.—U. S. Eng., 231 W. Main St., Denison, addnl. army training aids, embankments, etc., to C. F. Lytle Co., Denison, approx. $38,000. CD 3/7.

†Tex., Galveston—RADIO RANGE STATION—Civil Aeronautics Admin., P. O. 1639, Fort Worth, Zone 1, constructing ML radio range station, appurtenances, facilities, etc., force account. Approx. $28,000. Bids 2/28 rejected. CD 2/16.

†Va., Suffolk—APPROACH CLEARING—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., approach clearing, NOY 11541, to Mecklenburg Constr. Co., Durham, N. C., $56,500.

†Alaska, Ketchikan—POWER DEVELOPMENT—City, City Hall, Beaver Falls power project with clearing, powerhouse, tunnel, etc., to R. Johnson, Arctic Bldg., 3 and Cherry Sts., Seattle 4, Wash., $499,000. FWA. CD 1/29—ENR 2/1.

B. C., Esquimalt—TEST RANGE BLDG.—Dpt. Natl. Defense for Sea, Ottawa, Ont., Test Range Bldg. 139 and addn. to Ordnance Bldg. 192, H. M. C. Dockyard, to E. H. Shockley, 5611 Elm St., Vancouver. $104,945.

N. S., Dartmouth—FERRY SLIPS, etc.—Dartmouth Ferry Co., Dartmouth, ferry slips, pile and crib rock wharfs, to T. C. Gorman Nova Scotia, Ltd., 123 Ray Bldg., Barrington St., Halifax, about $265,000.

Ont., Fort Erie—ICE ARENA—Fort Erie Parks Comn., Fort Erie, ice arena, to N. O. Hipel, Ltd., 307 Hespeler St., Preston. Est. $100,000. CD 11/28—ENR 11/30.

Proposal Advertisement see p. 23